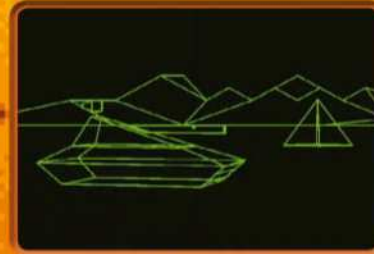
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MIKE MONTGOMERY AND DAN MALONE TEAM UP TO SHOOT THE BREEZE ABOUT THE ICONIC BITMAP BROTHERS BLASTER



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HOW THE POPULAR SUPERHERO SWUNG ONTO SEGA SYSTEMS



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THE RETROBATES

FAVOURITE CO-OP GAME



DARRAN JONES

Double Dragon has always been my favourite game to play co-op with a friend. The fact you can mercilessly beat them up at the end is the icing on the cake.

Expertise:
Juggling a gorgeous wife, two beautiful girls and an award-winning magazine

Currently playing:
Horizon: Zero Dawn

Favourite game of all time:
Strider



DREW SLEEP

I'm all for high-skill team play. Me and my partner used to be a force of nature in the bottom lane of Summoner's Rift in *League Of Legends*.

Expertise:
Being **Retro Gamer**'s resident Puppet Master

Currently playing:
Ni No Kuni II: Revenant Kingdom

Favourite game of all time:
Final Fantasy VIII



NICK THORPE

I'll forever have fond memories of fighting my way through Ragol with friends in *Phantasy Star Online*, even if we did mostly do it offline on the GameCube version to avoid phone bills.

Expertise:
Owning five Master Systems (I sold two)

Currently playing:
Winter Heat

Favourite game of all time:
Sonic The Hedgehog



SAM RIBBITS

I enjoyed the co-op puzzle-solving in *Portal 2* a lot. It helps that it's one of the best games of its generation anyway.

Expertise:
Toxic *Overcooked* versus mode strats

Currently playing:
Stardew Valley

Favourite game of all time:
Croc: Legend Of The Gobbos



GRAEME MASON

Streets of Rage 2, despite the inevitable arguments over who gets the health power-ups.

Expertise:
Adjusting the tape azimuth with a screwdriver

Currently playing:
Elite Dangerous

Favourite game of all time:
Resident Evil 4



DAVID CROOKES

I really enjoyed blasting through *Contra III* on the SNES with my brother and found the extra pair of hands came in handy.

Expertise:
Amstrad, Lynx, adventures, Dizzy and PlayStation (but is it retro? Debate!)

Currently playing:
Fortnite Battle Royale

Favourite game of all time:
Broken Sword



ANDREW FISHER

Sensible's brilliant C64 shooter *Wizball* had a two-player team mode, I was the Wizard and my brother controlled the Catellite.

Expertise:
Over 30 years of gaming, from Commodore 64 to Wii U

Currently playing:
Sam's Journey

Favourite game of all time:
Super Mario World



PAUL DRURY

Rip-Off, a beautiful vector game from 1980 made by one of my heroes, Tim Skelly. A lovely man and a pioneer of co-operative gameplay.

Expertise:
Atari concept art

Currently playing:
Mario Bros Game and Watch

Favourite game of all time:
Sheep In Space



JASON KELK

I've never really been a co-op kind of player, but have some fond memories of *Salamander* with friends as a kid.

Expertise:
Being a homebrew hero

Currently playing:
Firefleet

Favourite game of all time:
Io

LOADING...

Even though I was a console owner for the vast majority of the 16-bit period. I knew who The Bitmap Brothers were. I mean, I didn't know them, but I knew of their reputation. I mean, how could you not?

To me they seemed to be one of the coolest developers in the industry, with a rock and roll swagger that really appealed to my teenage self. Everyone remembers those press images from the magazines of course, but it was the games that justified the hype and made the developers such big news. The announcement of a new Bitmap Brothers game always felt like a big deal, and I remember being tremendously jealous of my Amiga and Atari ST owning friends when they got to play the likes of *Xenon 2* and *Speedball II* before me.

With a trademark distinctive art style and a reputation for fast, arcade-like action it was easy to recognise one of the company's games, which is why we're so pleased to be showcasing *The Chaos Engine* this issue. We've featured the game in the past, but consider this our final chapter on one of the Amiga's best blasters.

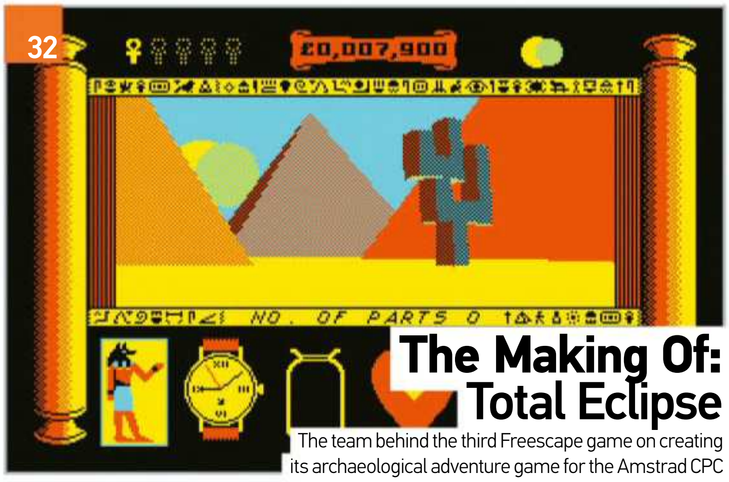
Oh, and I'd also like to announce that this is the first of regular subscriber exclusive covers that we'll be running going forward, so if you want a special issue each month please subscribe at bit.ly/retrogamermag.

Enjoy the magazine!



CONTENTS

>> Load 180 Breathing new life into classic games







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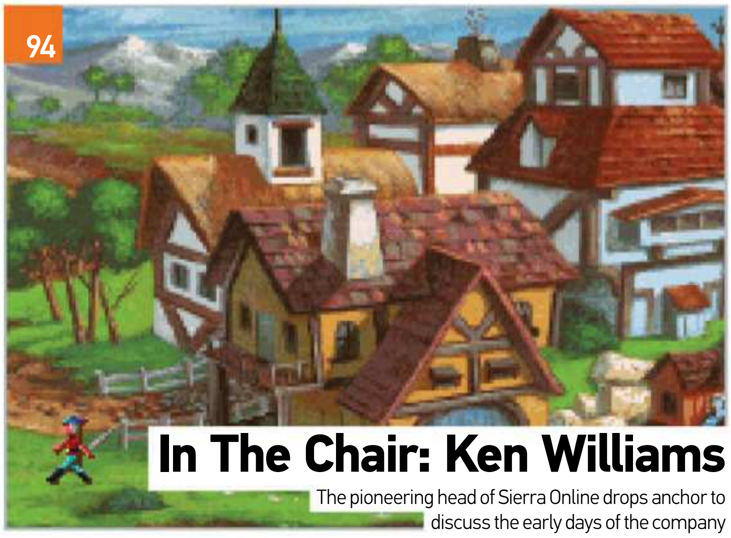
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GAMING HEADSET OFFER
SEE PAGE 28

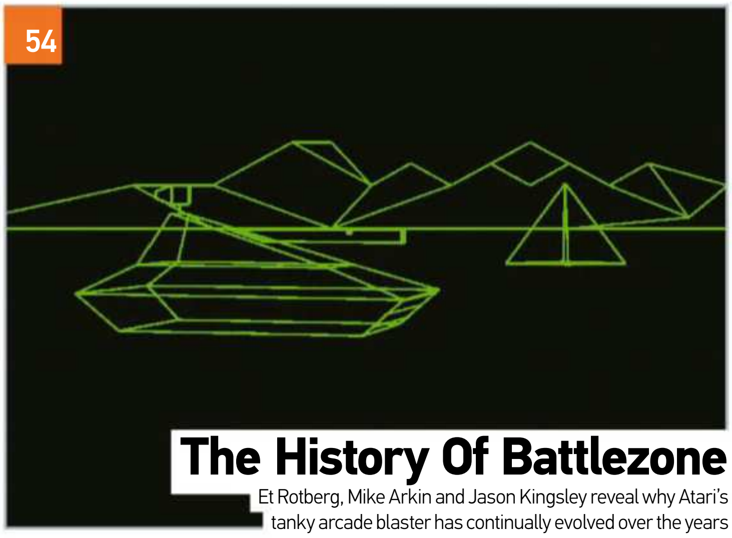








The pioneering head of Sierra Online drops anchor to discuss the early days of the company



Et Rotberg, Mike Arkin and Jason Kingsley reveal why Atari's tanky arcade blaster has continually evolved over the years

REVIEWS





ESSENTIALS





WHAT DOES THE FOX SAY?

Rupert Ochsner on his 16-bit run-and-gun

CONTENTS

F*ox N Forests* has been on our radar since hitting its Kickstarter goal in 2016. Now, just under two years after it was originally announced, Bonus Level Entertainment is preparing to release its love letter to the run-and-gun genre. We spoke to Rupert Ochsner to find out more.

Where did the concept for *Fox N Forests* originate?

The day my brother and I imported the Super Famicom from Japan back in the Nineties was the day when creating a 2D action platform game became my biggest dream. Two console generations later, when playing *Ikaruga* on the GameCube, the idea of switching seasons emerged and finally led to the creation of our [game].



How long has it taken to make the game so far?

It almost took three years from putting together the first design documents to finishing the game. *Fox N Forests* is a codevelopment between Bonus Level Entertainment and Independent Arts Software and the core team consists of five people plus freelancers that worked together for about two years.



» [PC] *Fox N Forests* will be heading to everything from PC to Switch. Expect a review in a later issue.

Aside from *Ghosts 'N Goblins,* does your game pay tribute to other titles?

It sure does! We basically created our personal 16-bit masterpiece by combining our own ideas with elements from games we love, such as *Super Ghouls 'N Ghosts*, *Wonder Boy In Monster World*, *ActRaiser 2*, *Castle Of Illusion*, *Mega Man X* and *Zelda: A Link to the Past*.

What's been the hardest thing to get right, from a game design point of view?

The collisions of the sprites, as well as getting the combination of the ranged and close-up attacks right, as our hero Rick The Fox uses a 'Magic Melee Crossbow' with a bayonet. During the course of development, we tried many different things such as an auto melee attack similar to *Metal Slug* or having separate buttons, one for shooting, one for slashing. Finally, we went for a dedicated attack button that will let you shoot when standing, kind of similar to *Super Ghouls 'N Ghosts*, and perform a melee attack in combination with pressing up, down, jumping or double jumping.



» [PC] Switching between seasons is an important mechanic and lets you solve certain puzzles and discover hidden secrets.



» [PC] Rick is a nimble fellow and has similar jumping skills to Arthur in *Super Ghouls 'N Ghosts*.

"We basically created our personal 16-bit masterpiece"
Rupert Ochsner

What technical challenges have you faced?
We were using Unity in order to make developing and later porting from PC (Windows, Linux, Mac) to PS4, Xbox One and Nintendo Switch as smooth as possible and luckily didn't face any major problems thanks to our experienced, hardworking team.

How does the changing of seasons work?
Switching seasons is the core feature of *Fox N Forests* and a lot of thinking and design work went into it. For example, we decided that Rick The Fox can switch between two predefined seasons per level, in order to maintain a quick and fluid gameplay – an A/B switch mechanic is more intuitive than an A/B/C/D one. Rick can switch seamlessly and on the fly between two seasons that vary per level by pressing one of the lower shoulder buttons. However, staying in the alternate season costs mana, so watch your mana bar, which can be refilled via collecting pick-ups. Just in case, it also refills automatically and of course the mana bar can be upgraded. So, in level 1:1 'Revolving River' Rick can switch between spring and winter, freezing the river and turning it into ice to walk on. In a later shoot-'em-up level, 'Tricky Treetops', where Rick is riding on his sidekick Patty The Partridge, the forest is on fire and switching seasons results in rain coming up, distinguishing nasty flames. However, harmless clouds will now turn into electrifying thunder enemies that must not be touched. Then we have fog vanishing in winter, giant leaves spawning in fall or bees that can only be passed when sleeping in winter and so on.

What led you to going with a 16-bit art style?
As mentioned earlier, it was always our dream to create a 16-bit style game. We went for a nostalgic Super Nintendo look and feel as it reminds us of the good old days when we were playing games all day and we combined this with modern game design. Basically, what *Shovel Knight* did with 8-bit presentation we are doing with 16-bit.

How did you feel about the game passing its Kickstarter?
This was a important step for us and we were super happy that all the hard work has paid off as well as receiving such great feedback for our vision.

One of the pledges was to help design a level. How has that worked out?
We offered the opportunity to either fully constructed a level yourself in our level editor, or to deliver ideas and sketches for us to implement. The process was handled via calls between these backers and our designers and resulted in some exciting, fresh ideas.

Why do you think retro-styled games like *Fox N Forests* do so well on Kickstarter?
Retro-style games usually hit a nostalgic nerve within older gamers, [and are] the same kind of people who are usually willing, or in the position to take a small financial risk in order to help a project get on its feet. We'd like to offer a big thank you to all of our backers for their support at this point. Personally, I am very happy with how the whole thing has turned out and that playing *Fox N Forests* truly feels like the 16-bit games we all love and remember!



» [PC] There are plenty of items hidden away in *Fox N Forests*, just like the platformers of old.

BEARING A RESEMBLANCE

JOHN DARNELL ON RESURRECTING A LOST C64 GAME FOR IOS

If you've been following the announcement of *Bear Beware!* on iOS recently you might have noticed that it features a number of Commodore 64 sprites. This isn't the developer John Darnell being cute or clever, he's actually reusing sprites from one of his early games.

"In 1984 I had zero experience in writing games. In fact, I had only done a six-week programming course," he tells us. "Software Projects sat me down with a Commodore 64 and told me to 'write a game'. Armed with a C64 programmers manual I taught myself 6502, and the original *Sleepwalker* was the result. [It's]not very good, but it served its purpose, which was to familiarise me with the C64 [so I was] equipped to do the *Jet Set Willy 2* conversion."

While John released a number of games during the Eighties, including the *Kane* games, *Star Paws* and the conversions of *Dragon's Lair* and *Dragon's Lair II*, he had an opportunity to write games for Micro Forte in Australia and left the UK in April 1989. After working self-employed then returning to Micro Forte, he changed jobs one more time. "I became a minister of religion and left game development behind," he says. "It was my past, not my present, and I didn't engage with games for several years. Then to my utter amazement, around 2011, I received an email, which led to my first interview with **Retro Gamer**. Then, in 2016 I decided to revisit *Sleepwalker*, purely for my own satisfaction, not having a clue that I may be able to get it published."



» [iOS] *Bear Beware!* features the same retooled C64 graphics that Trevor Storey did for the Psytronic release.



» [iOS] There are a large number of levels to complete in *Bear Beware!* are you up for the challenge?

> **"I felt a growing conviction that I could still write games"**
> John Darnell

Teaming up with Trevor Storey and Joachim Wijnhoven, John found a publisher in the form of Psytronic and an updated version of his original 1984 game was released, which pleased John immensely, calling the finished result "gobsmackingly awesome", The interest in *Bear Beware!* on C64 helped reignite John's interest in gaming and he soon found himself moving towards mobile devices. "Whilst developing *Sleepwalker 64* I felt a growing conviction that I could still write games that would bring pleasure to people," John continues. "I decided to live off my own money while I developed the game for modern platforms. I knew mobile games were a huge market and I needed to develop for mobiles. PC, Mac, and hopefully Nintendo Switch versions will also soon be available. The name *Sleepwalker* was unavailable, so we renamed it *Bear Beware!*.

While John has found retooling the controls to work on mobile platforms "a vertical learning curve", he's had less issues returning to creating games after such a long period away then you'd think. "Writing a game is an extension of who I am," he explains. "The various tools used are the means of expressing that. In 2018 I simply have to learn new tools, just as I had to learn 68000 to program the Amiga. That said, I can write in one line of C# what would have taken 20 lines of 6502!"

With *Bear Beware!* now completed, we are curious if John is interested in revisiting any of his earlier games, as titles like *Kane* would work particularly well on a smartphone or tablet format. "I would very much love to do *Star Paws* mobile!" It's a game you can read about in issue 164 and it's also available on the new C64 Mini, something John is very pleased about. "*Star Paws* was the peak of my creativity in the Eighties," he concludes. "It got great reviews. It didn't so much flop as it was squashed, for competitive and political reasons. So, I'm extremely happy it will get exposure it never had back then."





» John has been coding games for decades, and now he's developing for mobile platforms.



» [iOS] John admits the controls on mobile were a challenge. It will be interesting to see how they compare to the C64 release.

***Bear Beware!* will be available on Steam and the App Store.**



The Secret History Of Mac Gaming

The Mac is typically the last machine you think of when it comes to playing games, but this fascinating read from Richard Moss will help you change your mind. Each chapter focuses on a specific developer, including Steve Capps, Craig Erickson, Charlie Jackson and many others and sends you straight back to each era and game genre that they discuss. The Mac gaming scene might not have been as big in Europe as it was in the US, but Moss' book allows you to visualise that period perfectly and we'll be very surprised if you're not tempted to discover a little more about this interesting range of computers as a result. We were.

Price: £30 **From:** unbound.com

PICK OF THE MONTH

Crash Annual 2018

The latest collaboration between Chris Wilkins, Oliver Frey and Roger Kean is a tribute to the popular *Crash* annual that used to appear each Christmas. In addition to brand-new artwork from Oliver, there are reviews of the latest homebrew games, a feature on the Spectrum Next, more news on the brand new *Dizzy* game, *Wonderful Dizzy*, as well as a fascinating look at how *Crash* was made on a monthly basis. A digital version is also available via Zinio or our **Retro Gamer** app.

Price: £15 (£5.99, digital)
From: fusionretrobooks.com, zinio.com

Zelda: The History Of A Legendary Saga Volume 1

Nicholas Courcier and Mehdlel Kanafi certainly know their *Zelda*. This lavish-looking tome may be short on developer access but still gives a decent insight into the popular franchise. Each chapter focuses on a specific game, up to *A Link Between Worlds* and discusses both its story and its place in *Zelda*'s canon, as well as any new mechanics that the game introduced. There's nothing really here for hardcore fans of the series, but anyone else will certainly get value for money from it.

Price: $30 **From:** thirdeditions.com



Downright Bizarre Games: Videogames That Crossed The Line

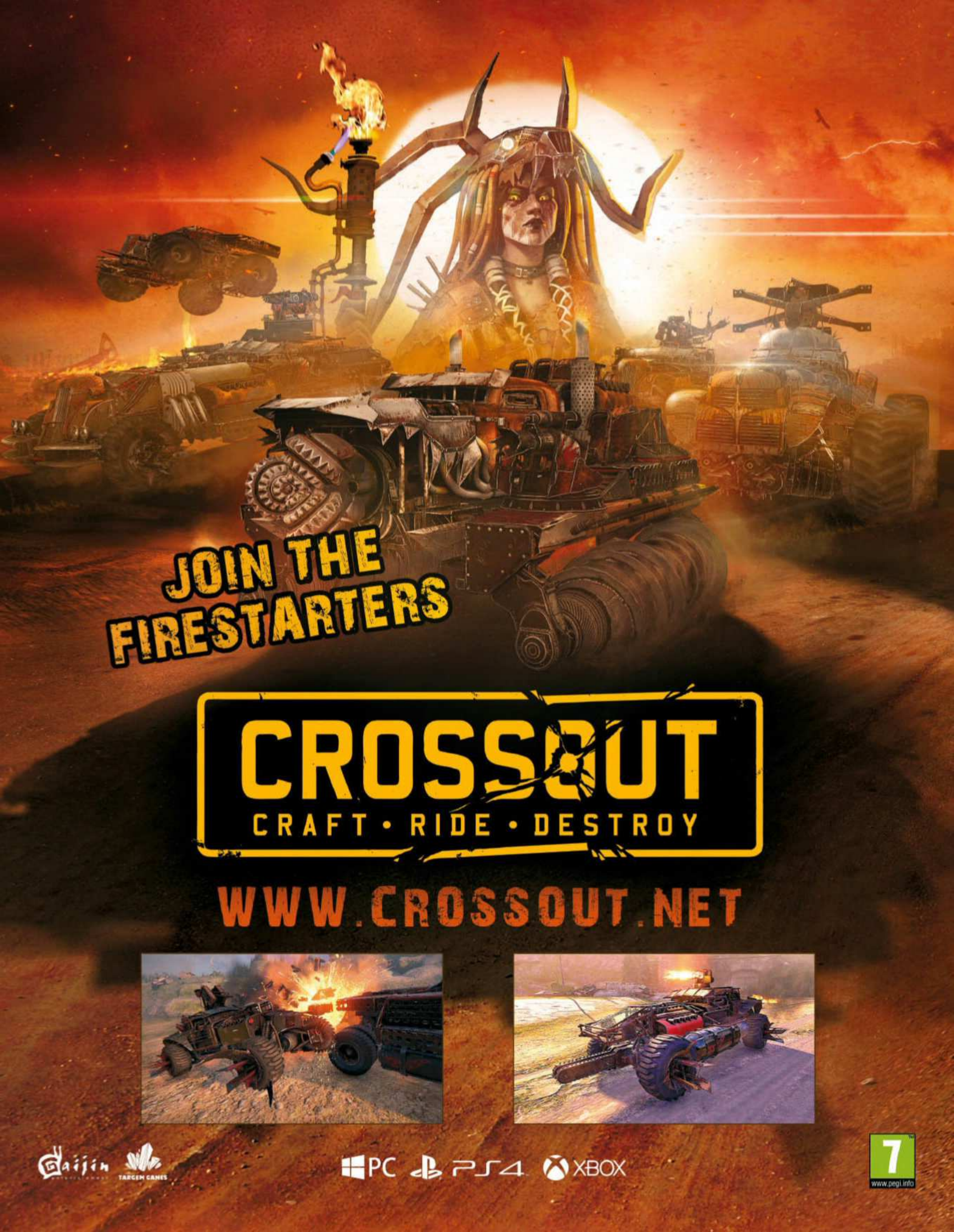
Fans of the obscure and controversial will get a lot of mileage out of Michael Thomasson's new book. It covers everything from *Mr Mosquito* to *The Guy Game* and looks at various marketing fiascos and publicity stunts that generated controversy at the time of release. Some of the entries reach a little (*Super Mario Bros* as a reference to drug taking anyone?) and there's a distinct lack of content on controversial 8-bit home computer games, like *Barbarian*, but there's still plenty to sink your teeth into.

Price: $38.99 **From:** blurb.com

Before Mario

All the recent interest in Nintendo's Labo has reminded us about this excellent read from Omaké Books. It charts Nintendo's early days in the toy industry before it moved into videogames and is filled with all sorts of gorgeous looking imagery. It's very light on text, but that doesn't stop it from being a real delight to thumb through.

Price: £32.99 **From:** amazon.co.uk


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Here's my bio… Paul Rose
Paul Rose is probably better known as Mr Biffo – the creator and chief writer of legendary teletext games magazine *Digitiser*. These days, he mostly writes for kids TV, but can still be found rambling on about games, old and new, for his daily website, Digitiser2000.com.



“Yeah, Time Commando was clunky as heck, but it was interesting”

Total Recall

If you try to picture the history of videogames as a big, physical, pile, at the top you've got *Tetris, Minecraft, Grand Theft Auto V*, a bit below those are your *Tomb Raider* titles, your *Mario* games, *Pokemon, Skyrim*, the *Call Of Duty* series… then all the way near the bottom there's a whole foundation of other games, buried and unloved.

Just as there are some a bit further up (I'm looking at you, *Rise Of The Robots*) which don't deserve their place, there are many games, right at the bottom of the sales pile and hidden in the shadows, which really did deserve better.

I've been having a bit of a trawl through those shadows recently, looking up old games that I've forgotten I'd forgotten. Most of the time these games didn't sell too well, but they weren't quite bad enough to be remembered as terrible games either. We've all heard of the Atari 2600 version of *ET*, but what of the games which are neither here nor there? Well, more often than not they've been overshadowed by bigger, noisier, releases.

I'm not even talking about well-regarded, but low-selling games (though invariably, many of them were poor-sellers), but ones which were dismissed with a shrug by most reviewers, and consigned to the bottom drawer of gaming's memory banks.

I mean, let's take *Time Commando* as an example. Time what?! Yeah, *Time Commando*. It was a PC and PlayStation title, published in Europe by Electronic Arts, developed by Adeline – the studio behind the similarly forgotten *Little Big Adventure*. Still not ringing any bells? It had a great little plot – your character ended up trapped in VR combat simulations drawn from different eras of history – and, for the time, some remarkable prerendered backdrops. Yeah, it was clunky as heck, but it was interesting, it was trying to do something different (perhaps too different), and yet all those ideas, all that effort, has been forgotten.

What about *Urban Chaos* – another game I loved, way ahead of its time, beating *GTA* to the punch by being set in a massive, free-roaming, 3D city? A dev team would've slaved over it for months, possibly years, but whoever mentions it now? It was considered fine… but nothing special. And yet, I had some great experiences with it.

More recently, what about *Epic Mickey*? It was a major release on the Wii, didn't really sell great (though just about well enough to generate a sequel), but you rarely hear it mentioned as one of the best games for that system. Alright, it might not have been – but it was packed with great ideas, and deserving of a better fate than for history to simply ignore it.

I find it sad when you consider that there's not a videogames developer in the world who wants their games to slip through the gaps of everyone's recollection. So I say this; go for a good old trawl through your own memories. Pick out one unloved game today and tell everyone you know about it. It's long overdue that mediocrity had its moment in the spotlight. ★

Do you agree with Paul's thoughts? Contact us at:

RetroGamerUK @RetroGamer_Mag darran.jones@futurenet.com



The Museum Of Play

Paul Drury visits this amazing place and meets assistant vice president Jeremy K Saucier

Located in Rochester, New York, The Strong – named after its founder Margaret Woodbury Strong – is America's National Museum Of Play. Opened to the public in 1982, it boasts a superlative collection of toys and games spanning centuries and includes the World Video Game Hall Of Fame And International Center For The History Of Electronic Games which, at present, preserves more than 60,000 videogame-related items.

Why is 'play' something worth creating a museum around?

It's immensely important. It plays a huge role not only in our history, but also in human development. Though it's often associated with childhood, we play throughout our lives. We all have our fascinations, our 'play', whether that's gardening or videogames.

How do videogames fit in to your museum?

Our mission is to preserve the history of play, and videogames have changed the way we play in fundamental ways. They've also changed the ways we communicate with each other, relate to each other and even how we learn. Historians study film and literature and we believed that in the 21st century, the dominant cultural form was going to be videogames and scholars would study these as well. We wanted to build a collection that would preserve and interpret that history.

So how have you gone about that goal?

Firstly, by collecting the games themselves. We have more than 60,000 games and related peripherals and hardware, plus there's all the hard work of preserving things on magnetic media and storing the original source code. Then we have the one-of-a-kind archival material, like Will Wright's notebooks, Roberta Williams' design documents and the original Williams' pinball playfield drawings, including many from the Forties done by Harry Williams himself. You can actually see the erasure marks, where he updated his designs! Those give us an insight into how designers created games. We also have a collection of over 20,000 computer and videogaming magazines and they help us understand gaming culture. We have every issue of **Retro Gamer**, too, and your magazine plays an important role in that history. We've had researchers come here and use them!

We're glad to help! What are some of your must-see exhibits?

We have many iconic objects, like Ed Logg's prototype *Asteroids* cabinet. We have the personal design documents of people like Dani Bunten Berry and the Apple II computers owned by Bill Budge and John Romero. Ralph Baer was an incredible supporter of our collection and he donated all his design notes for Simon, plus we have on display a recreation of his Brown Box and the actual desk from his Florida workshop, complete with his cardigan and slippers!

Tell us a little about the museum's archives.

We have hundreds of thousands of documents and company records, paper and digital, including Atari corporate records, which came to us on 23 pallets! It took over a year just to organise that and it includes original engineering drawings, internal correspondence, design binders for games like *Star Wars* and *Missile Command*… and we have similar material for companies like Sierra, Brøderbund, Adventure International and many more.

Any future plans you can share?

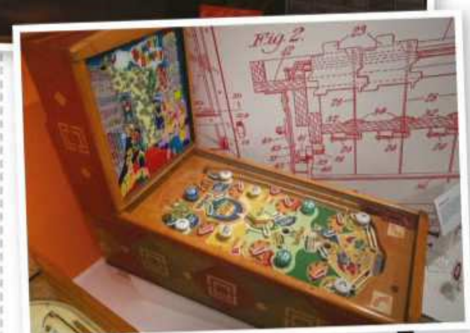
We've recently started a 'Women in Games' initiative. Because of the nature of our collection, we can look back and say, 'Hey, women have been part of the games industry since the very beginning'. We want to look at their roles as game designers, as executives, as workers on the factory floors, as game players… and how women have been represented in games, too. ★

For more information and to plan your visit see museumofplay.org

> **"We have many iconic objects, like Ed Logg's Asteroids cabinet"**
> Jerry Ellis



» The museum is full of fascinating exhibits, such as Ralph Baer's work desk.



» Pinball fans are well catered for at the museum – this is Gottlieb's Humpty Dumpty table from 1947.



» Look what we found in the archives – a complete collection of **Retro Gamer**!



» Located in Rochester, New York, even the museum's architecture is playful.



» The museum has some real rarities like this *Panorama Race Drivin'* cabinet

The Underdog Collector

Readers take us through the retro keyhole



BIO

NAME:
Paul Megara

OCCUPATION:
Asset Protection Manager

TWITTER:
@phantom81x

ESTIMATED VALUE:
$5,000+

FAVOURITE SYSTEM:
Mega Drive

FAVOURITE GAME:
GoldenEye 007

"IT ALL STARTED IN ABOUT 1997 WHEN I GOT MY HANDS ON A CLEARANCE ATARI JAGUAR AT ELECTRONICS BOUTIQUE"

For the most part, Paul Megara's collection story is a pretty normal one. His favourite system is a pretty common one in the Mega Drive and his favourite game is one that featured on our very own cover fairly recently. But what sets Paul apart is that he has a real penchant for the underdog machines out there. Before we get into that though, we were interested to find out what Paul's earliest gaming memories are. "Waking up early on Saturday morning to try and beat my brothers to be the first one on the NES!" he's quick to say before going back a bit further. "Playing *Star Wars* on the Atari 2600 thinking it was the best game ever and playing *ET* while not really understanding what's going on, too."

Being brought up on a diet of Atari and Nintendo is never a bad thing, and it's easy to see where Paul's passion for gaming began. His urge for collecting started at a young age, too, well before the current boom, as he explains, "It all started in about 1997 when I got my hands on a clearance Atari Jaguar at Electronics Boutique. It cost me $50 for the console and I suddenly knew that I had to get my hands on as many games as I possibly could for it while the prices were still cheap. So I would go around finding more Jaguar games at bargain prices in places like Kaybee Toys and Boscovs. Before long my collection had filled out nicely." Paul doesn't just have a penchant for Atari's last home console, though. "In 2001 I was lucky enough to pick up a TurboGrafx-16 with the CD add-on as well as a Turbo Express handheld, 37 games on both Hu-Card and CD for a grand total of just $80! I had no idea the console would become so popular among collectors. When I got it I played it for a little bit then just tucked it away in storage for a number of years."

Even with these great finds Paul, like many other collectors, still has those holy grails that have alluded him "I would absolutely love to find an Atari Jaguar CD add-on" wishes Paul before telling us what his collecting goals are for the future. "I would really like to complete my sets for the Dreamcast and Atari Jaguar. The Dreamcast because it was the first console I bought with my own money and the Jaguar because it's just so rare and obscure." *



SEGA 32X
"I am a huge fan of the Sega Genesis anyway so I just had to own the mushroom shaped add-on!"

GOLDSTAR 3DO
"The 3DO pretty much falls in line with my love of obscure and failed consoles so I was pleased to grab this rarer model."



ATARI JAGUAR
"Paid $50 for this back in 1997 and now boxed consoles are going for four times that on eBay."



ATARI KARTS
"I picked this up on clearance back in the day for peanuts, and now it's one of the Jaguar's most valuable games."

JEWEL IN THE CROWN

TURBOGRAFX CD

■ "The consoles themselves are getting harder to find but grabbing a CD add-on in full working order is now almost impossible!"



BACK TO THE NOUGHTIES

APRIL 2001 – Does Peter Molyneux's latest game live up to the hype? Has the PS2 finally found its groove? Did Rare really make a profane cartoon squirrel? Nick Thorpe dons his finest Korn hoodie and travels back to 2001 to find out...



NEWS APRIL 2001

An international incident occurred on 1 April, as a United States Navy EP-3 intelligence aircraft collided with a Chinese People's Liberation Army Navy J-8II fighter. The US flight was passing through sensitive airspace over the South China Sea, near to the disputed Paracel Islands and Hainan Island in China. The J-8 pilot, Lieutenant Commander Wang Wei was killed in the collision and the US plane was forced into an emergency landing on Hainan. 24 American crew members were held by the Chinese government until the USA released a statement of 'apology' on 11 April.

Also on 1 April, one wedding between a female couple and three weddings between male couples were conducted simultaneously at midnight in the Netherlands, to celebrate the legalisation of same-sex marriage. The European country was the first in the world to legalise same-sex marriages.

On 28 April, American entrepreneur Dennis Tito became the first human to fly to space as a tourist, joining a Russian Federal Space Agency visiting mission to the International Space Station. He paid an estimated $20 million for the trip, in which he was taken to the space station by Soyuz spacecraft. NASA was reluctant to work with Tito and refused to aid in his training. He spent just under eight days in space before returning to Earth in another Soyuz.



[PS2] Overhyped disappointment or a near-perfect shooter? That depends entirely on whose review you read...

THE LATEST NEWS FROM APRIL 2001

If the *Official PlayStation 2 Magazine* is to be believed, April 2001 was a vintage month for Sony's slow-starting console. The magazine dished out an 8/10 score for *Sky Odyssey* and three 9/10s – the first being for *Quake III: Revolution*. Despite the unsurprising lack of online play found in the other versions and the surprising lack of USB keyboard and mouse support, *Play* (90%) and *Edge* (8/10) also felt it worthy of praise – the latter declaring it "the best example of an FPS to have appeared on PlayStation 2 to date".

Praise was rather less unanimous for the other big hitters. The official magazine considered Konami's mech game *Zone Of The Enders* to be "a near-perfect shoot-'em-up" that was "as intelligent as it is playable". *Play* was less impressed due to the game's length ("a little shy of two hours"), giving it 80% and declaring it "one of the biggest disappointments we've seen so far this year". *Edge* agreed that the game was "overly concise" and offered 7/10. *Star Wars: Starfighter* proved even more divisive. In the 9/10 review in the official magazine, Jamie Sefton described the game as "a hugely addictive space combat experience with edge-of-your-seat skirmishes, sublime controls, stunning graphics, vibrant sound effects and enough bonus missions and minigames to keep a wannabe Jedi knight's midi-chlorian count sky high for months." *Edge* was less impressed. Although it felt that the game "adequately captures the tension and visual flair contained in the films", it awarded a 6/10 score due to its assessment that "in terms of game design and structure there is little ambition on show".

Still, multiple noteworthy releases was more than most other platforms could muster this month. The original PlayStation had to make do with just *Time Crisis: Project Titan*, Namco's lightgun sequel – a game which *Play* awarded a 90% score to, judging it to be "up there with the best of them" in its genre. It's fair to say that this was an unusually high score – *Edge*'s 6/10 was much closer to the critical consensus, with the reviewer claiming that the game "represents an enjoyable challenge, but not enough inventiveness to ensure AAA (or even AA) status."

The N64 also had its biggest UK release in months, in the form of the foul-mouthed platformer *Conker's Bad Fur Day*. Unusually, this was being published by THQ in Europe despite being developed by Nintendo-owned Rare – apparently, the console manufacturer felt that the game wasn't in line with its family-friendly image. While it wasn't Rare's best N64 game, it was a typically high-quality affair – *Edge* judged it to be "refreshingly unique" and "a worthy swan song for the console" in a 7/10 review. *N64*'s Geraint Evans felt that "*Conker*'s redeeming quality remains its wealth of imagination" and that "despite the



[Dreamcast] The idea of a cel-shaded Sonic was great, but the game attached to it was decidedly non-great.



[PlayStation] Oddly, this sequel uses the original *Time Crisis* soundtrack – not that we mind, as it's great.



[PC] Peter Molyneux delivers the goods, albeit somewhat late, with *Black & White*.



[N64] Judging by the reviews, Nintendo was silly to pass up publishing *Conker's Bad Fur Day*.

constant frustration caused by the poor game mechanics, you just can't help but love it," ultimately awarding the game 89%. Import players were also treated to *Paper Mario*. "Combat criticisms aside, the *Mario RPG* world is inventive, gorgeous and rich with subquests and in-jokes," said *Edge* in a 7/10 review, while *N64* gave it 90% and called it "a first-rate title with no hint of a fault in the gameplay."

Players would be forgiven for worrying about *Black & White* – Peter Molyneux's PC magnum opus had suffered numerous delays resulting in a lengthy three year development period. Thankfully for Peter and his team at Lionhead, the effort paid off, resulting in a stunning debut. *Edge* greeted the god game with a 9/10 review, describing it as a "colossal achievement". Aspects singled out for praise included the game's villagers, which were "substantially smarter than their brethren in other RTS/settlement sims", as well as the colossal creatures that became the game's signature, as "training them and watching them grow is a uniquely satisfying gaming experience".

Dreamcast owners experienced mixed blessings this month, with a healthy schedule blighted by poor games – the likes of *ECW Anarchy Rulz* and *Championship Surfer* making for a very bleak month. *Sonic Shuffle*, a blatant attempt to ape the success of the *Mario Party* games, proved to be a major let down despite some pretty cel-shaded graphics. The UK release of *Grandia II* was a highlight, and the only other worthwhile release was *Project Justice: Rival Schools 2*, Capcom's sequel to the cult favourite fighting game. *Official Dreamcast Magazine* gave it 8/10, describing it as "such an accomplished package that it's difficult to identify a flaw of any real substance", but complained of "a bit of a hole where there should be a boss character."

Lastly, it seemed that gaming's next big console launch was already destined for success. *Edge* reported that a whopping 2.7 million Game Boy Advance consoles had been preordered ahead of the machine's anticipated Japanese launch. Nintendo's plan was to have a million units available for launch day, another million for the second week, and a million per month thereafter. Nintendo games were unsurprisingly generating the most demand, followed by those published by Konami – which had apparently relied on the Game Boy Color for 50 per cent of its software sales in the prior year. Join us next time to find out how it all worked out… *



CHARTS

APRIL 2001

PLAYSTATION 2



1 SSX (EA)
2 Tekken Tag Tournament (SCEE)
3 Timesplitters (Eidos)
4 FIFA 2001 (EA)
5 Ridge Racer V (SCEE)

DREAMCAST



1 Toy Racer (Sega)
2 Sonic Adventure (Sega)
3 Shenmue (Sega)
4 Tom Clancy's Rainbow Six (Virgin)
5 Tomb Raider: The Last Revelation (Eidos)

PC



1 Who Wants To Be A Millionaire? (Eidos)
2 Championship Manager 00/01 (Eidos)
3 The Sims (EA)
4 Command & Conquer: Red Alert 2 (EA)
5 Escape From Monkey Island (Activision)

MUSIC



1 Don't Stop Movin' (S Club 7)
2 Survivor (Destiny's Child)
3 Lovin' Each Day (Ronan Keating)
4 Out Of Reach (Gabrielle)
5 Get Ur Freak On (Missy Elliott)

THIS MONTH IN…



Play

Karin from the Netherlands, responding to a recent report on female representation in games, writes in arguing that the best way to ensure fairer representation would be to encourage women into games development. Clearly moved by this, the magazine responded with "Mmmmnnnnn… Dutch women shooting zombies…"



N64

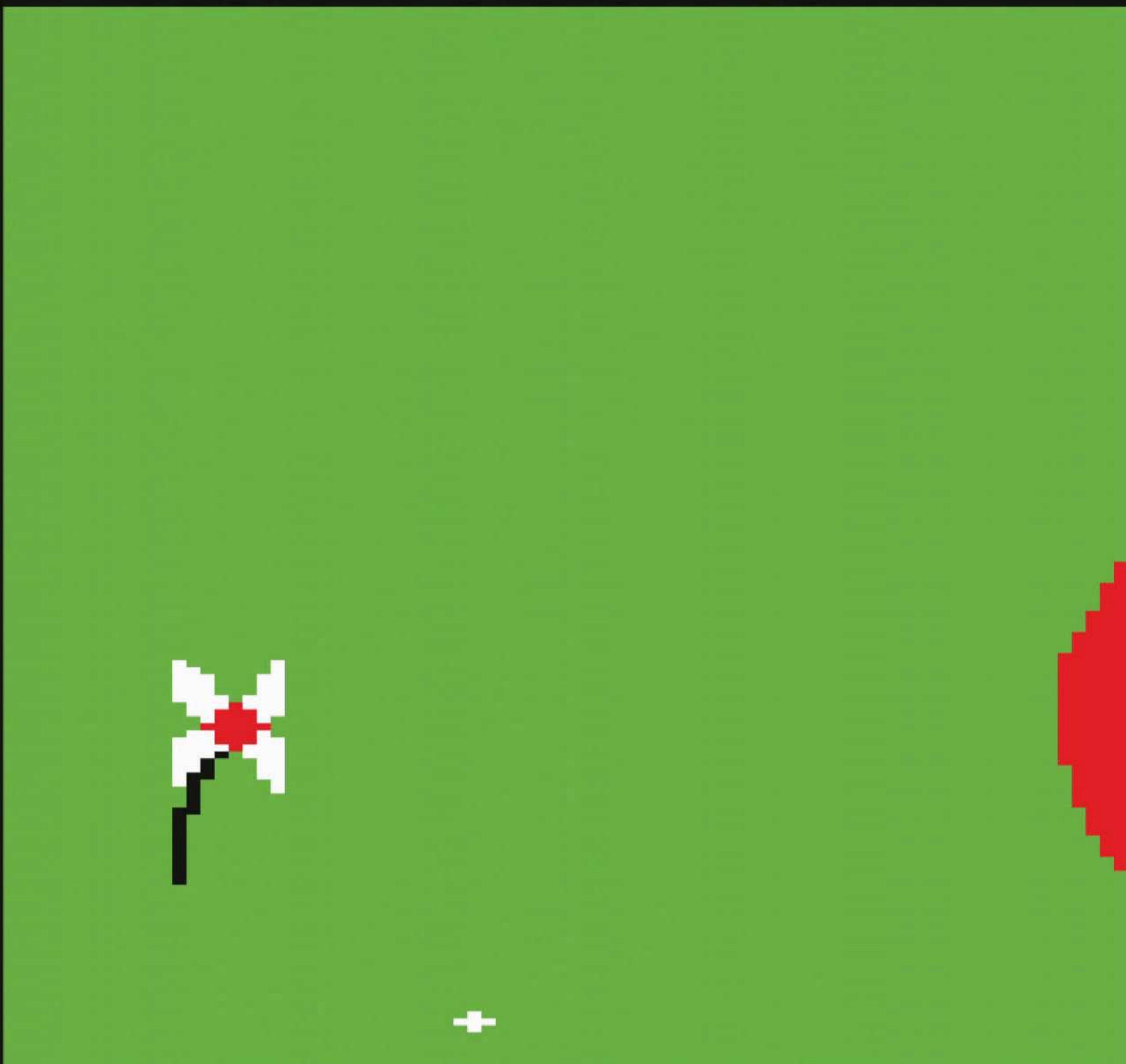
This month's Nintendo Net column reveals that Retro Studios' new *Metroid* game will be a first-person shooter, after a more traditional take on the update had failed to please Nintendo. This is a prospect that worries the magazine's team greatly, with concerns including, "How are they going to handle Samus turning into a ball?"



Official PlayStation 2 Magazine

Digital distribution is this month's featured topic. EA thinks publishers going it alone is crazy as it's "best to partner with a well-established retail site". HMV believes stores will "adapt and become part of the process of change." The team also sees a future in episodic gaming. All very interesting…

Podd can w





Podd

PODD CAN ENTERTAIN

» RETROREVIVAL



» BBC MICRO » 1984 » ACORNSOFT

Dear reader, allow me for a moment to indulge in a brief flashback. I'm seven years old, standing in the Portakabin that serves as my classroom, and staring at the monitor of the class computer – a BBC Micro, of course. My teacher quickly hurries over to admonish me for not paying attention to my work, complaining that she had put up screens to stop me getting distracted by the computer (as if somehow, I wouldn't think of just walking around them). Which game was responsible for my distraction? That would be *Podd*.

The idea of *Podd* was to try to find all the actions that the titular character was capable of performing by typing in verbs. We had great fun with this, as mundane things like, "Podd can walk," were quickly replaced by the more exciting likes of, "Podd can explode," complete with an accompanying animation. But we never did find all 120 verbs, and it turns out we needn't have bothered as many of the animations are repeated. Not that it stopped *Podd*'s popularity at the school, where the kids would paint him doing whatever he could.

But what amuses me today is the level of vocabulary sophistication expected of an audience of five-to-11-year-old children. "Podd can sleep," sure. "Podd can saunter," or, "Podd can ascend," were pretty unlikely things to hear from that age group. In fact, I think if I heard any child of infant school age correctly use the word 'saunter', I might just call an exorcist. It's a little bit *too* weird. *

INSIDE THE CHAOS ENGINE

WHAT DOES IT TAKE TO MAKE A 16-BIT SHOOT-'EM-UP EXCEPTIONAL? A DASH OF STYLE, A PINCH OF STEAMPUNK INSPIRATION AND SOME SLOW-COOKED AI ROUTINES. NICK THORPE SPEAKS TO MIKE MONTGOMERY AND MORE ABOUT THE THINKING GAMER'S SHOOT-'EM-UP

CHAOS ENGINEERS

OUR INDOMITABLE INTERVIEWEES



MIKE MONTGOMERY
Cofounder, The Bitmap Brothers



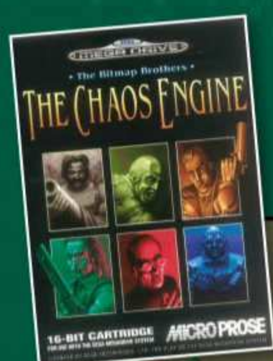
DAN MALONE
Artist, The Bitmap Brothers



ANDY NUTTALL
Staff Writer, Amiga Format

IN THE KNOW

- » **PUBLISHER:** RENEGADE SOFTWARE
- » **DEVELOPER:** THE BITMAP BROTHERS
- » **RELEASED:** 1993
- » **PLATFORM:** VARIOUS
- » **GENRE:** RUN-AND-GUN



It's funny to think how language changes and evolves. When *The Chaos Engine* was released 25 years ago, the term 'steampunk' had yet to permeate the public consciousness – rather than conjuring images of people in top hats and goggles operating machinery festooned with brass valves and analogue gauges, it was more likely to draw a blank stare. But *The Chaos Engine* is most definitely a steampunk game.

The plot is simple: Baron Fortesque has been experimenting with early computers, but also time and space, and has created a machine known as the Chaos Engine. It quickly becomes self-aware and, as self-aware machines tend to do, turned on its creator. Suddenly Victorian England is beset by bizarre happenings – both man and beast are mutated into ravenous monstrosities, and even the landscape itself has







» [Amiga] You'll frequently get ambushed by monsters when important events happen, including node activations and key grabs.



become warped. With no other good options available, a team of mercenaries is hired to go in and take the machine down by force.

The public got its first look at *The Chaos Engine* in magazine previews as far back as late 1991, and a rare glimpse of the game in action was afforded to viewers of *GamesMaster* early in 1992. "You could see from their early demos that it was going to be a classic," says Andy Nuttall, who reviewed the game for *Amiga Format* back in 1993. "Magic Pockets hadn't long been out, so they were at the top of their game. It was that tingly feeling that you got when you knew the history of a top game developer and knew what they were capable of, and then you start to see that magic working on a new game."

The top-down shooter was already very recognisable, even at an early stage. Obviously taking influences from the likes of *Commando* – "Did it?" Mike Montgomery, managing director of the Bitmap Brothers, cuts us off. Apparently, the conclusion drawn by many contemporary magazines was not quite on the money. "To be quite honest, the game that influenced us the most was probably *Gauntlet*." This makes sense – the labyrinthine levels and emphasis on co-operative play seen in *The Chaos Engine* are definitely qualities you'd associate with Atari Games' arcade hit. "Everything is influenced by something, subconsciously or consciously, but I think it was more subconscious – this was the designers getting together and saying, 'This is what we would want to play,'" Mike elaborates.

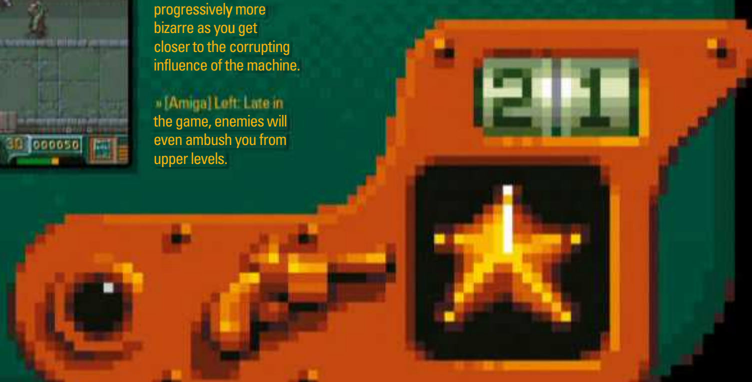
"THE GAME THAT INFLUENCED US THE MOST WAS PROBABLY GAUNTLET"
Mike Montgomery





» [Amiga] Above left: The enemies become progressively more bizarre as you get closer to the corrupting influence of the machine.

» [Amiga] Left: Late in the game, enemies will even ambush you from upper levels.



SOLDIERS OF FORTUNE

GET TO KNOW THE SIX HIRED GUNS THAT REPRESENT HUMANITY'S ONLY HOPE OF STOPPING BARON FORTESQUE'S CREATION



GENTLEMAN

SPECIAL ITEM: **MAP**

■ If you're playing solo, the Gentleman may be the ideal choice of partner. He's more intelligent than most of the other characters, and more durable than the Preacher. He also carries a map as a special item, making him invaluable in later stages.



NAVVIE

SPECIAL WEAPON: **DYNAMITE**

■ The Navvie is a bit sluggish but tough as old boots, packing serious firepower and a good chunk of health. Dynamite is a hell of a special weapon too, destroying every enemy on screen in one massive explosion. He's not too quick on the uptake though, so he's not an ideal CPU player.



BRIGAND

SPECIAL WEAPON: **SHOT BURST**

■ This is not the type of chap you would ordinarily want to trust, but his balanced stats make him a great choice for new players. He's reasonably fast and can take a few hits, and the useful shot burst special power allows him to fire a one-off ring of bullets in all directions.









It's astonishing how much of the final game's quality was evident so far from release, but *The Chaos Engine* had already been in development for over half a year by this point. The Forest and Workshops graphics looked pretty much complete, and the level layouts were already complex and interesting (though decidedly different from their final incarnations, with far more items). Enemy sprites and player characters are all easy to identify as being close to final, if not final, and there was even an early version of the equipment screen in there. For any fan of the developer, the game caught the eye. "Dan Malone is a master of that style; I loved what he and the others had done with the sort of stippled relief to make everything look metallic," says Andy. "Plenty of games used a similar trick, but the Bitmaps' stuff just had that look – you knew instantly who had made the game."



What couldn't be gleaned from those early previews was the game's amazing soundtrack. The techno tracks set the pace of the action with pounding beats and had a dynamic element, as new sections would kick in at various points – for example, near the end of a stage. "I remember the audio as a whole being really strong; Richard Joseph was a genius," says Andy. "The sound and speech effects were fantastic, really suited to the game and helped build the strong atmosphere." Indeed, the voice that would declare "Node activated!" and "Special power!" is as iconic a part of the game as any.

However, the game's most memorable audio was composed outside of the Bitmap Brothers camp. Joi, an alternative dance act comprised of brothers Farook and Haroon Shamsher, composed the theme that accompanies the intro sequence. It's an unforgettable track, opening with a siren and other industrial noises set against drum beats, and one that took advantage



» [Amiga] It's hard to tell, but we're playing with the CPU's assistance here. It covers us well as we take out the upper-left enemy.



THUG

SPECIAL WEAPON: **MOLOTOV COCKTAIL**

■ Here's a book you can judge by its cover – the Thug is as dumb as a sack of hammers, twice as ugly and three times as hard. He's not quick but he's got high health and his weaponry packs a punch – in particular, his special is great for carving a path through massed mutants.



MERCENARY

SPECIAL WEAPON: **BOMB**

■ This guy is the professional of the bunch, and he has suitably balanced stats to match. He's not outstanding in any specific area but proves reasonably good in all of them, and his eight-way blasting bombs can be thrown down to lower levels from above for an advantage.



PREACHER/SCIENTIST

SPECIAL ITEM: **FIRST AID KIT**

■ This guy is clearly meant for a supporting role – his high intelligence will help to carry less-experienced players, and the first-aid kit will keep him alive longer than that limited life bar might suggest. Just don't blame us when he runs in and nicks all the good power-ups.

> "WE GAVE THEM ALL DIFFERENT ATTRIBUTES, SIMILAR TO WHAT YOU'D DO IN AN RPG"
> Mike Montgomery

of the Amiga. Of course, such a collaboration was not unusual for the Bitmap Brothers, given its previous work with licensed music on *Xenon 2*.

But what was astonishing about those early previews was that three characters were on screen at all times, compared to two in the final game. At this point in the design, even with two human players, the presence of a computer-controlled partner was a constant. It was ultimately dropped, but the fact that it was even considered showed how much faith the Bitmap Brothers had in *The Chaos Engine*'s major distinguishing point – its artificial intelligence. If you weren't playing with a second player, you'd have a CPU-controlled partner to fill that role.

Each of the six controllable characters didn't just play differently in your hands – they behaved differently when controlled by the computer. "The thing with the characters was that we gave them all different attributes, similar to what you'd do in an RPG," says Mike. "It was very important that for each character, that people knew that they were different. Otherwise, what was the ▶



» [Amiga] Some levels have multiple exits. As a rule, the harder the exit is to access, the better a position you'll start in on the next stage.



Q&A: DAN MALONE

THE BITMAP BROTHERS ARTIST RECALLS HIS EXPERIENCE OF WORKING ON THE CHAOS ENGINE



How long did *The Chaos Engine* take to develop?
Me and Phil Wilcock started talking about it when we were still doing *Speedball 2*, so maybe a couple of months before actual production started, and we were just sketching out ideas, characters and look – basically just doing it freestyle, really. When it started coming together and went into development in earnest, I'd say it was six months while I was doing *Speedball*, I was doing both games, and for about a year and a half after? I can't remember to be honest, but it was quite a long project. It was two years, basically.

We'd guessed that – based on the early previews we have seen, it was looking advanced as early as late 1991.
Yeah. We were going to do it three-player, and once that was abandoned the game tightened up, because we had a clear target then. The tile sets for each level, they're pretty much my favourite tile sets that I've ever done – they are squeezing every single pixel possible. And then there was map building and I'd talk to Simon Knight, who was doing the layout for the levels – he'd give me the layout and I'd… tweak it slightly, so that I could get all the features in. It was a pretty efficient process, but there was a lot of work.

It sounds like you had a lot of freedom over the look of *The Chaos Engine*?
Oh yes, complete freedom. I'd been reading this story in *2000AD*, I can't remember what it was called but it was steampunk, if you like. There was a lot of talk, Phil was reading *The Difference Engine* and books like that, and the name '*Chaos Engine*' just popped up like that. Yeah, we had a lot of freedom really – it was the last enjoyable game I worked on that got released!



» [Amiga] Dan's artwork squeezes a lot out of the Amiga's memory - the detail on the rocky ledges is quite extraordinary.

How did you come up with the designs for the six characters – in fact, was it even always just six characters?
There were about 12 characters originally – there was a female character, a guy with a fencing mask on and a shotgun, there were other characters. But when you're getting down to it, you need to get the game done, so we took it down to six and committed to two-player, and it worked. The inspiration for the characters, I wanted them to feel exotically old. The Navvie for instance, he's a railroad worker – he's a great character because he's really heavy with the unions, and the industrial revolution. He's one of my favourites because, 'What the hell's a Navvie?' – well, he works on the railroads, would've been in the Crimean War, that kind of thing. So I really wanted to have that Victorian feeling, that feeling that it's another time.

***The Chaos Engine* is unusual for a game of this type in that it only has one boss encounter, with the Chaos Engine itself. What inspired the design of that imposing enemy?**
I only had a few tiles left that we could use, so it was nowhere near what I wanted, but we'd run out! I just put together what I had left and took a few tiles out of the sewer background so I could use them for the end, but you look at it and apart from his head in the middle animating, there's not a lot going on. We were scraping the barrel by that point! We just couldn't get that kind of big boss encounter into the game – it would have been nice to, though.



point of having characters?" These attributes would ultimately determine how closely each character would follow the 'ideal' line of play – and in fact, a lot of work was put in to ensure that the CPU didn't just do all the work for the player.

"What we actually did was we played it as a two-player game, and then we spent a lot of time analysing what the players were actually doing in real life, and then tried out hardest to code that in," says Mike Montgomery, the managing director of the Bitmap Brothers. "What we'd do is we'd actually have two computer players in testing, and people would just watch it and make sure it was working, and then just keep tweaking it until it was right." This was one of the tasks that would ultimately serve to prolong the development of the game, but the effort was worth it – AI characters behave convincingly, providing cover fire when you need it and pushing forward often, occasionally blundering into traps just like we do.

Andy's memories of the AI centre on one of its more amusingly traits. "I remember the CPU stealing all my stuff! In two-player I expect to have to fight for collectibles, but in one-player to break open a stash of loot or have a monster drop stuff, to then have the Amiga nip in before me and pick it all up," he recalls. That wasn't the only impact the AI had on his experience. "The enemies felt really good, like they were deliberately avoiding your fire but still possible to kill with a few quickly developed tactics," he remembers. "I don't know how 'intelligent' they were; they were hyped as intelligent so I was expecting them to be, and they certainly felt advanced."

Useful AI partners were important, though, as *The Chaos Engine* wasn't a simple run-and-





» [Amiga] Things really start to heat up in Fortesque Mansion. The carnage rarely lets up, even when you have puzzles to solve.

gun affair. The levels were mazes, hiding many secrets and often multiple exits. Anything you did had consequences, from altering the stage layout to triggering a monster ambush. Making progress was as much about smart decision making as it was twitch reactions, and the game even de-emphasised traditional genre staples – for example, the game only features one traditional boss fight. "I think we were trying to break the mould slightly," says Mike. "Most other games had end of level bosses, but that's not what *The Chaos Engine*'s about, really."

The Chaos Engine finally arrived on the Amiga in early 1993, and the press heaped accolades on it. At the lower end of the scale, *CU Amiga* gave it 81% with the assessment that it was "by no means the best that the genre has to offer, but it's a frantic blast all the same." *Amiga Action* awarded the game 92%, commenting that, "It's obvious that the Bitmap Brothers' sole intention is to get back up on the award-winners' ▶



BATTLEGROUNDS

THE FOUR STAGES YOU'LL FIGHT YOUR WAY THROUGH IN ORDER TO REACH THE CHAOS ENGINE ITSELF

FOREST

■ The grounds surrounding Baron Fortesque's mansion had previously been well-kept ornamental gardens. Ever since he unleashed his crazy contraption, everything has been turned upside down – the forests have become a maze, boiling rivers of mud have appeared, and everything is out to get you. Mutants emerge from the trees to shoot at you, gigantic frogs leap into your path, and indescribable organic constructs shoot matter at you in a mortar-style fashion. Frankly, you don't want to be around when it lands – it hurts a lot, and we haven't even accounted for side-effects.





WORKSHOPS

■ Just look at the windows here – the lights are definitely on, but we have no idea who's home. We shouldn't spend time worrying about that though, as the things that aren't hiding from us are incredibly dangerous. Hulking ogres patrol the alleyways in this area, and they're just the start of your troubles. You'll also have to contend with steam vents, sentient oil blobs, dangerous gun turrets and weaponised whirlwinds. If you somehow manage to survive all of that, there are some lovely legless Cyclopean mutants wandering about – they're quick and possess deadly shots.

MANSION

■ At some point during this stage, you'll find yourself saying, 'I could have sworn I've been here before,' and you'll be absolutely right – not every path leads forward. We can't say whether this was the doing of the Chaos Engine or just the Baron's own attempt to stop anyone from coming too close to his work. However, we can say for sure that those gigantic disembodied hands are a mark of the machine, as are the hulking giants that like to hurl projectiles from above. Oh, and then there are the clones of your characters that will happily shoot you on sight.





CELLARS

■ The lair of the machine is buried deep beneath the mansion – and what do machines like to protect themselves with? A pat on the back for anyone who guessed 'more machines', as this place features robots that can jump down from above you, mini tanks and far more. If you can make it to the final stage, you'll come face to face with the Chaos Engine itself – a nightmarish construct that seems to have absorbed its own creator in its own madness.

CONVERSION CAPERS

THE CHAOS ENGINE SPREAD ITS MALIGN INFLUENCE ACROSS MULTIPLE PLATFORMS – WHICH ONE FARED BEST?



AMIGA 1993

■ The original release, and the one against which all subsequent versions are measured. Chief advantages over rival platforms include the quality of the pounding background music and the excellent intro theme. Some players also prefer this version's muted colour palette – it wasn't used often for conversions.

ATARI ST 1993

■ This doesn't match the Amiga version, chiefly due to technical limitations – inferior scrolling, fewer colours and the absence of music and sampled speech. Still, it's hard to argue that ST owners were short-changed, as this is still one of the most accomplished blasters available for the format.





AMIGA (AGA) 1993

■ The improvements available to owners of advanced Amigas, such as the 1200, are so modest as to be tough to spot. Better colour handling allowed for a more appealing palette to be applied to the otherwise identical sprite work. All subsequent versions would use this look as a basis.

PC 1993

■ The PC version plays well and introduces a floating HUD which allows players to see more of the screen during play. That's great and all, but the music here – particularly the brilliant intro – has been majorly compromised and sounds like it should have been utilised in a circus instead.





MEGA DRIVE 1993

■ The Mega Drive version offers a taller field of vision and puts specials on a second button, but colour contrast is higher due to a more restrictive palette, and the soundtrack is downgraded. Get the PAL version – it runs at the correct speed and is the only version of the game to offer adjustable difficulty.

SNES 1993

■ The SNES version offers a narrower field of vision than the Mega Drive version, but does a much better job of replicating the Amiga soundtrack. As with the Mega Drive version, the game benefits from having specials mapped to their own button, and the NTSC release runs faster than the Amiga game.





AMIGA CD32 1993

■ Owners of Commodore's console get a version of *The Chaos Engine* that is almost a direct port of the AGA version. The difference is the intro – instead of the original tune and gigantic dinosaur, we instead get an animation with voice acting, showing the creation of the game's titular monstrosity.



MOBILE 2005

■ Despite some major musical alterations, this is a surprisingly smooth version of the game. Unlike the other versions the display is vertical, and some notable level design changes have been made for reasons we can't fathom. If it didn't have to be played with a phone keypad, it'd be pretty nice.

RISC OS 2000

■ This rare version arrived rather late in the day, having been shelved by the original publisher due to poor game sales on Acorn's machines. It offers visuals and sound on par with the Amiga 500, with the exception of a greater vertical resolution that allows you to see more of the stage in a single screen.



PC 2013

■ This is the excellent AGA Amiga version, but with some subtle enhancements – full 360-degree movement, online leaderboards and online co-operative play. There are also some optional graphical filters, smoothing and a bloom effect, which can be turned on if you like that sort of thing.





▶ podium." *The One* gave the game 85%, Andy Nuttall's review in *Amiga Format* gave the game 90%, and Stuart Campbell gave it 89% in *Amiga Power* – a score remarkable enough that publisher Renegade took out an advert in *Computer Trade Weekly* declaring the game "So good, even that b*st*rd Stuart Campbell likes it!"

Did Mike and the rest of the team expect such a positive reception? "Of course we did. We were the Bitmap Brothers," he responds without hesitation. The game was then converted across a variety of computer and console formats, coming out well in every case. The game was retitled *Soldiers Of Fortune* in North America, where the Preacher was also retooled into the Scientist. A sequel soon went into production, but found a smaller audience due to the decline of the Amiga market. Still, the game remains in demand, with the 2013 PC rerelease being the most convenient way to play today.

Revisiting *The Chaos Engine* reveals that it's hard as nails, but still a lot of fun. Andy recently took the time to do so himself, and came to a similar conclusion. "A while ago my son and I were talking about two player co-op and head-to-head games, and I talked to him about *Spy Vs Spy* and *The Chaos Engine*/*The Chaos Engine 2*. I found them all in the loft, and we had a fun few hours revisiting them. They really stand up today, we had a lot of fun," he confirms. Of course, there's a painful twist that many gamer parents will be familiar with: "Unfortunately he's already a lot better at games than I am, but it's still great sharing the nostalgia with him and he digs it."

It's unlikely that we'll ever see *The Chaos Engine* and its crew back in action, but that's something which feels surprisingly okay. We'll always treasure the memories we made playing this game, whether the partnership was between an AI Brigand and a lonely Navvie player, or a father and son arguing over who gets to pick up the food. When we feel like creating new ones, the original game is just as good as ever. ★









THE DIFFERENT ENGINE

THE STORY DOESN'T STOP WITH THE CHAOS ENGINE – BARON FORTESQUE SURVIVED. DAN MALONE AND MIKE MONTGOMERY SHARE THEIR MEMORIES OF THE CHAOS ENGINE 2...

At the end of *The Chaos Engine*, you destroy the titular mechanical menace and everything is presumably okay. But in fact, you end up caught in a time singularity, along with Baron Fortesque. Disaster! He can get you back to Victorian England, but you're going to have to follow his instructions – and even then, only one of you can go back with him. As a result, the Brigand, Gentleman, Navvie and Mercenary must do battle, performing the Baron's tasks while sabotaging one another in order to ensure that you're the one that gets to go home.

"It was *Spy Vs Spy* that influenced that, to an extent," says Mike. "We wanted to make it different. We really didn't want it to be a sequel just for a sequel. We could have probably called it something different as well." Despite being a major departure from the original formula, it makes sense – after creating a convincing artificial intelligence partner, repurposing it as a challenging opponent is a smart move.

"We had strong ideas at the end of *The Chaos Engine* which were essentially discarded, which is the way of these things," says Dan Malone. "The time travel thing – nah, I wasn't into that. Although I enjoyed doing the different flavours for each level – Aztec, Japanese, all that kind of thing, and I liked the extra moves that we did. But the whole game didn't have the pulse and the kinetic energy of the original *Chaos Engine*. I'd love to reboot it actually, a *Chaos 1.5* or something. I wanted to take them to the New World – the Civil War, play with things like that – but it would start in Victorian England. But you're limited with what you can do."

When *The Chaos Engine 2* finally arrived in late 1996, the game was reviewed well by the few Amiga magazines that remained in publication. *Amiga Computing*, by this point incorporating *Amiga Action*, gave it 92%, and *CU Amiga* gave it 90%. *Amiga Format* gave it 85%, noting that it was best in two-player mode. "I really liked *The Chaos Engine 2* with its split-screen and head-to-head mode, and I'm sorry that my magazine (*The One*) shut down before we could get to review it," says Andy Nuttall. "I think it too is a bit of a classic." However, the game has a lower user rating than the original on popular Amiga games sites.



» [Amiga] The split-screen gameplay of the sequel was fun and earned critical acclaim, but fans were left divided by it.



» [Amiga] *The Chaos Engine 2* gives different objectives before each stage, adding some variety over the first game's missions.

Unlike the original, *The Chaos Engine 2* was never ported to other platforms. "To be quite honest, it shouldn't have come out on anything," Mike states bluntly. "Well, that's not quite true. The biggest problem is that we should have canned it earlier. The Amiga market was dead by the time that it came out. The sales were pitiful. We're a commercial company to an extent, and we should have made the commercial decision to either can it or move it to another platform. It cost us a lot of money."

Was there no option to port the finished Amiga game across to those other formats, to try to recoup the loss? "The publishers weren't interested because the Amiga version didn't do anything – but of course the Amiga version didn't do anything, because the Amiga was dead anyway," The result was that *The Chaos Engine 2* would be the last outing for these characters, as the Bitmap Brothers moved on to other projects.

"I think it was pretty good, and if it had been on a different format it might have sold well. I know how little it sold, and I'm not telling you, but considering how little it sold you'd be surprised by how many people know about it," says Mike. That's what he ultimately takes comfort in, despite the commercial disappointment. "People liked it, people found it interesting. It sold very little, but it's not forgotten."



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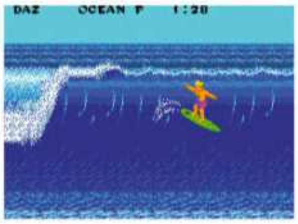
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Master System Control Pad Fact

■ Some Master System control pads allow you to attach a (very ineffective) mini joystick to them for a more arcade-like feel.

ESSENTIAL GAME California Games



Mark Cerny's fantastic conversion of the popular Epyx home computer hit works brilliantly on the Master System and remains one of the best games on the console. Sega's plucky control pad is more than capable of dealing with events like surfing and BMX, or the precision button presses that are required during a bout of flying disc. It really comes into its own when you're trying to pull off all sorts of silly stunts in footbag, though. A great game that will really put Sega's control pad through its paces.



Master System Control Pad

» RELEASED: 1986
» PLATFORM: MASTER SYSTEM
» COST: £7 (ORIGINAL RELEASE), £8+ (TODAY, UNBOXED)

Sega's first western console gained quite a foothold in the United Kingdom, but it eventually lost out in sales globally due to the sheer impact of Nintendo's own 8-bit console. Although the Master System lost its scuffle with the NES, one area it trumped its rival in was the inclusion of a better controller.

We're sure that there will be many readers who will happily defend the NES pad, and we can certainly understand why. It features more functional buttons, for a start, and has an excellent d-pad. And yet, while we applaud the NES pad's functionality, it ultimately loses out to the Master System's offering in ergonomics.

In comparison, the Master System pad is a far better controller to game on for long stretches of time. Its edges are more rounded, making it surprisingly comfortable to use. Its two buttons are a decent size as well, meaning cramp never tends to set in. It might not be the prettiest-looking thing in the world, but what it lacks in aesthetics it makes up for in comfort. It's a solidly built controller that allows you to easily play through the Master System's interesting library of classic games for hours on end.

THE MAKING OF TOTAL

ADVENTUROUS GAMERS TOOK TOTAL ECLIPSE AND ITS SEQUEL TO THEIR HEARTS AS THEY EXPLORED CORRIDORS OF A LONELY, ANCIENT PYRAMID. CREATED IN 3D USING THE MIGHTY FREESCAPE ENGINE, IAN ANDREW, PAUL GREGORY AND CHRIS ANDREW TELL DAVID CROOKES WHY IT WAS SO SPECIAL



IN THE KNOW

- » **PUBLISHER:** Incentive Software
- » **DEVELOPER:** Major Developments
- » **RELEASED:** 1988
- » **PLATFORM:** Various
- » **GENRE:** Adventure



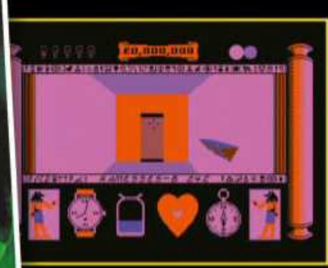
The journey that you make around the imposing great pyramid in the first moments of *Total Eclipse* is one that fills you with excitement, intrigue and adventure. There's the bright yellow sun casting a shadow over your biplane sitting on the desert sands. There's a doorway into the pyramid to your right. But just behind that structure is a glimpse of the moon, two hours before a total eclipse. It is, as the watch icon beneath the playing area suggests, 8pm. And it is time to get a move on.

Quite why you need to be such in a hurry is explained in the game's instruction manual. At 10pm on 26 October 1930, the moon is set to totally eclipse the sun, triggering the curse of Re, the God of the Sun, causing Earth's natural satellite to explode. So there is no time to lose as you seek to destroy the shrine of Re, located at the pyramid's apex. Only then you start playing.

Total Eclipse is slow. Sometimes painfully so. Yet there is a perfectly valid reason for this. The game – which was originally going to be called *Curse* – was built using the wondrously innovative Freescape engine created by Major Developments, the software department of publisher Incentive and it pushed the technological boundaries like few games before it.

"It wasn't thought possible to do solid 3D graphics on 8-bit computers at a reasonable framerate," says Incentive Software's founder Ian Andrew. "Before *Driller* there had been flight sims and *Battlezone*-type games that used wireframe 3D but you could see through the shapes."

Undeterred and with some programmers turning the project down, Ian turned to his brother, Chris, who reckoned he could make it work. It was at that point that the fundamentals of the Freescape titles were nailed. "They had to be adventure games, they had to use shading to get more effective colours and we had to find a method faster than Z buffering [the name given to the management of image depth in 3D graphics]," explains Ian.



» [Amstrad CPC] Situated in the back entrance of the pyramid, this room has a water trough to help prevent dehydration.

Total Eclipse became something of a pinnacle in the Freescape 'series'. *Driller* and *Dark Side*, which were both set in space, had taught the team a lot, not just about the technology they were putting to good use but the type of games that would appeal. "We had learnt that people like the 'real world' better

ECLIPSE

& TOTAL ECLIPSE II: THE SPHINX JINX



» [Amstrad CPC] This large room has a small green cube which, when shot at, will provide a set of stairs.

» Paul Gregory (below) and Ian Andrew (bottom) worked wonders with the Freescape engine.

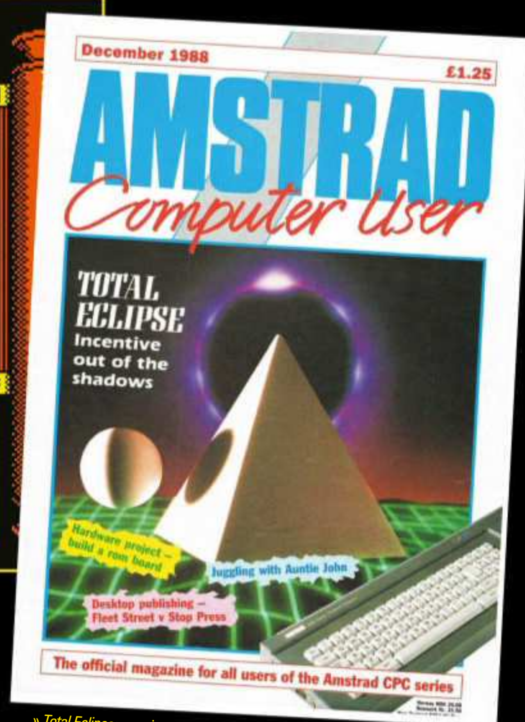




than space," says Ian. "You can be immersed in a game in a familiar-ish environment much more if you recognise objects and the surroundings better. We learnt how to optimise the code, so we could make things a bit faster and the environments could be bigger." The result was, as *Zzap!* concluded, "the most complex and captivating Freescape adventure so far".

Major Developments consisted of Ian, his brother Chris, Sean Ellis and Paul Gregory, with Freescape – together with its earlier games – created first on an Amstrad CPC. "It had 128K memory and a disc drive," Chris explains of the choice to use Alan Sugar's 6128. "The memory also allowed room for the development tools: Devpac Z80 assembler and debugger. Everything was written in Z80 assembler including the routines to multiply and divide numbers."

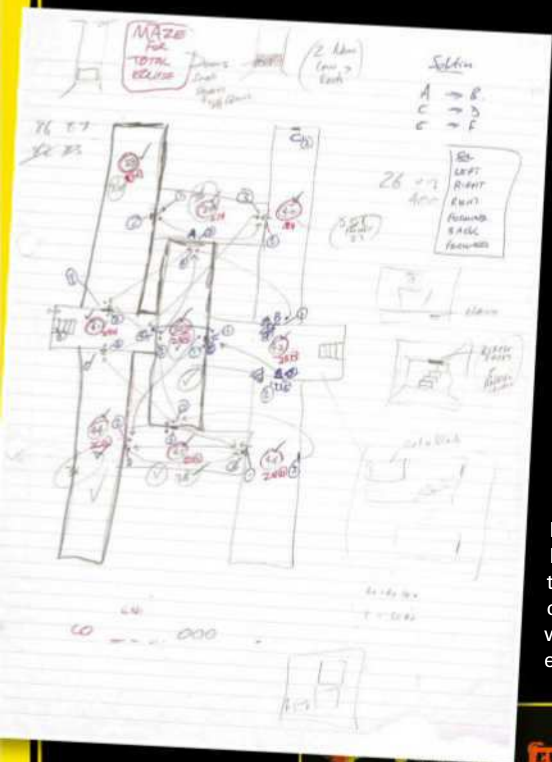
Total Eclipse was the most ambitious title yet for the engine. It used 20KB of the CPC's RAM for the routines, 10KB for the game-specific parts and 10KB for the data. The



» *Total Eclipse* was given the lion's share of preview coverage, at the time.

remainder was used for buffers, variable storage and calculations. More than that, however, was the way in which the game was structured. Aside from using a first-person perspective ("If we showed the character in 3D, it would all move too slowly," Ian says), *Total Eclipse* introduced a multitiered level design.

This meant that instead of traipsing around the various rooms that made up the game with your feet firmly on the ground, the 3D environment was much more complex. As you worked your way through the game, solving puzzles and exploring to your heart's content, you could climb steps and edge yourself across galleries, looking at rooms from up high. It also added a level of confusion which meant players had to map the game or else risk getting lost, but that created a sense of wonder.



It also gave Major Developments an excuse to play around with Lego to prototype the rooms and map the game for their own design purposes. It would certainly have needed a fair few bricks since *Total Eclipse* was 70 per cent bigger than previous Freescape games, with 50 locations. But, by this point, Ian and his crew had become more familiar with the engine and they could spend more time on the game. One addition was the introduction of spheres. "I think they were simple to add but I didn't have to program them in," recalls Ian. "It was another advancement, though, and I thought the more we could add, the closer to realism we would get, therefore the better the experience it would be."

"I THINK THE INDIANA JONES FILMS INFLUENCED ME"

Ian Andrew

Chris admits the spheres weren't that difficult to achieve given there was a circle routine for drawing the sun and the moon ("they conveniently render as circles," he says). But aside from the fancy visuals, puzzles were the key component of the game. There were wall panels, pressure pads and treasure chests, together with a need to avoid putting too much stress on your beating heart and keep yourself hydrated by filling your bottle at water stations dotted around the pyramid. "The thinking went along the lines of, 'We are in Egypt, we are in a pyramid, so what would be in there?'" Ian says. "I think the *Indiana Jones* films influenced me and we looked at ways of keeping players on their toes."

Indeed they did, especially with poison darts to contend with. "I like the darts. They really get you going," Ian continues. "The chest balanced on a pole that may crush you seemed a bit harsh looking back but the increasing heartbeat added a good sense of urgency." The team resisted, turning the game into an all-out shooter, however, even though the player would need to make good use of a pistol. "I don't like first-person shooters and I didn't feel comfortable developing a game like that. Personal preference, I guess," Ian confides.

Although the speed was touching upon snail-like in relation to 3D games today, *Total Eclipse* was nevertheless an improvement on *Driller* and *Dark Side*. Coprogrammer and designer Paul says every aspect of the Freescape engine was "under pretty constant optimisation" and that, "as new tricks and techniques were developed, optimisations were employed from the very lowest level polygon rasterisation through to the data representation, data flow and geometry representation".

Indeed, as Chris elaborates, by the time *Total Eclipse* was being developed "we had learnt how to make the best out of the minimum number of objects". "We also introduced predefined objects that could be used in more than one area," he adds, "although *Driller* had this in a limited preprogrammed way. This allowed bigger worlds for the same data storage." The 3D engine also let the developers pull of some neat tricks including the ability to not only look up and down and rotate left and right but crouch, too. "Because

» Some early production work on *Total Eclipse* showing off the design of the puzzle-filled pyramid.



» [Amstrad CPC] Don't go running to mummy when this sarcophagus opens and the body inside starts to zap you

PORTING THE ECLIPSE

Which version blocked out the rest?



ZX SPECTRUM

■ The Speccy version ran a tad more quickly than the Amstrad CPC's version but the reduced colour palette affected its admirable stabs at realism. Were it not for some clever shading, the ankhs and water troughs would have blended into the background, but thankfully all of the puzzles and absorbing game design remained intact.



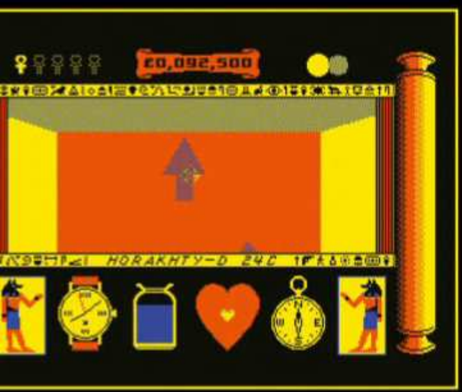
COMMODORE 64

■ There is little to distinguish *Total Eclipse* on the Commodore 64 from the Amstrad CPC version other than a jaunty ditty playing in the background and the loss of a couple of Anubis depictions from the instrument panel. It was also just as slow, entailing a lot of patience as players waiting for the screens to be rerendered.



ATARI ST

■ As with the Amiga version (pictured to the right of this entry), *Total Eclipse* on the Atari ST is operated via the onscreen icons which makes the gameplay more fluid, since it allows you to better focus on the screen. This makes the instrument panel that bit more cluttered but it was nevertheless a fine conversion job from Sam Ellis.



» [Amstrad CPC] There are subtle hints to most puzzles, just in case you end up getting stuck.

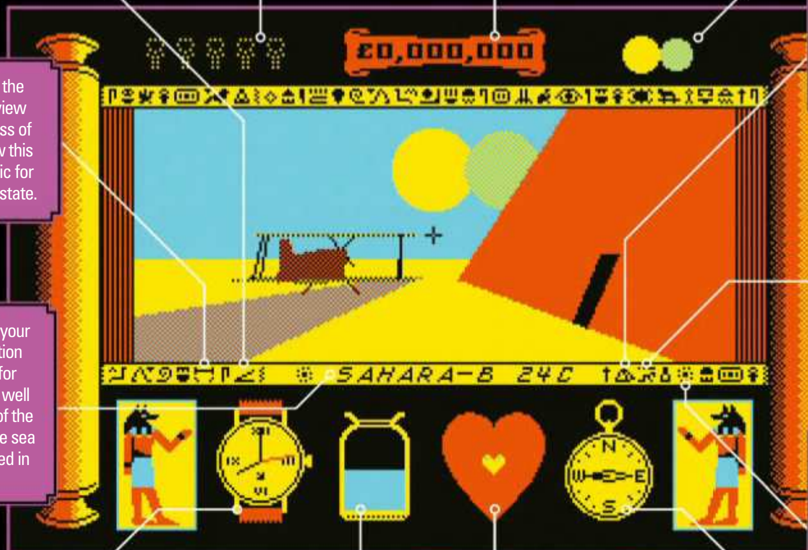
we had built a true 3D engine, things like crouch and look up and down were all there for free," says Ian.

Memory was the biggest problem, however. "The world data had to be compact – every spare bit was used if possible," Chris explains. Colours were another issue. "The Amstrad had only four colours at the resolution required and the Spectrum only two, so stippling was used to make up to 15 shades." On top of that were technical requirements. "The co-ordinates were only 8-bit, so the worlds were broken up into smaller areas," Chris continues. "You couldn't see more than one area at a time either, so that reduced the processing power required." This helped enormously because, as he points out, the Z80 wasn't fast and the 6502 in the C64 was even slower. "I am still amazed that we managed to get playable games," he confesses.

And that is exactly what resulted. With *Total Eclipse*, as Ian says, "there was a feel of being there;

MASTERING THE ECLIPSE

How to save the world from a curse





COMMODORE AMIGA

■ With a great use of colour for both the rejigged instrument panel and the main playing screen, *Total Eclipse* on the Amiga certainly overshadowed the 8-bit versions in terms of its graphics. It also bettered them in the speed stakes, although the overall experience could easily be destroyed by toggling the grating, moody-sounding music.



MS-DOS

■ As well as adopting the same instrument panel of the 8-bit versions and prettying up the colourful, higher resolution graphics, *Total Eclipse* for MS-DOS also ran at an improved speed thanks to the enhanced power at Incentive's disposal. It made the pyramid and its claustrophobic rooms far more pleasurable to explore.

EVOLUTION OF FREESCAPE



DRILLER

1987

■ As the first Freescape release, and the slowest of the lot, *Driller* introduced gamers to the solid 3D landscapes that would become the engine's hallmark. Set in space and visually impressive with its lovely shading and colour, the game involved moving an excavation probe through 18 regions of the moon Mitral while digging to allow gas to escape.



DARK SIDE

1988

■ Set 200 years after *Driller*, *Dark Side* may have looked more sombre than the previous game but it had a larger playing area, a greater number of logical puzzles to solve and a complex environment to explore. Using the character's jet pack was fun while the mix of arcade, strategy and adventure made for a more complete experience.

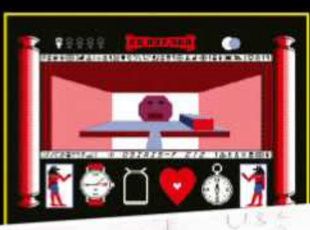


CASTLE MASTER

1990

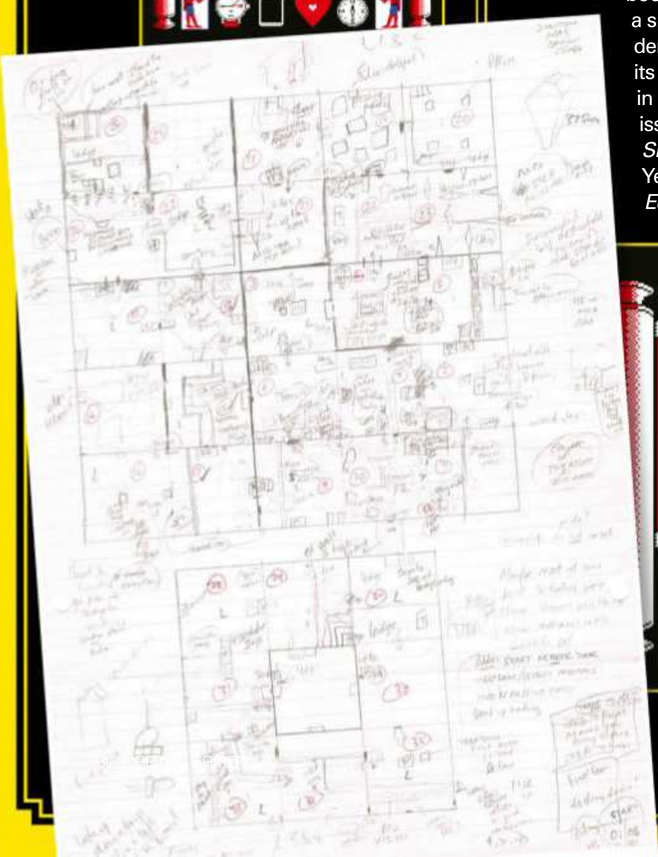
■ By working hard to enhance Freescape following *Total Eclipse*, Incentive proved it was willing to invest in its winning technology. The result was a faster, less glitchy game filled with a huge number of locations and puzzles. Players could choose the prince or princess, the decision slightly affecting the way the game could be completed.





being aware of what was above and below became important". The addition of a flashlight, a compass, wrist watch and a pistol, "were all game elements to have in mind so that the player doesn't relax too much". Players would need to collect ankhs which allowed them to unlock doors. Any treasure players collected would also let them boost their score, displayed in pounds – "Maybe if I had put a dollar sign in, then we would have sold it into the USA," laughs Ian.

Not that it proved to be a difficult sell on UK soil. *Amstrad Action* boosted sales by slapping a special-edition cassette demo of the game on to its Christmas issue cover in 1988. In the same issue, it made *Dark Side* the Game of the Year and awarded *Total Eclipse* 93%, making



"THE HOME COMPUTER CLUB HAD A LOT OF BUYING POWER"

Ian Andrew

it a Master Game. Meanwhile, *Zzap!* gave it 94% and it became a *Crash* Smash on 93%. Sam made versions for the Amiga, Atari ST and PC. "Just by having the framerate much faster meant the experience was better," says Ian. "We also put more detail in." A sequel became inevitable.

Released in the Summer of 1989, *Total Eclipse II: Sphinx Jinx* was actually created to boost the sales of the first game. It was originally made available for the Spectrum, C64 and Amstrad CPC through the Home Computer Club, a popular mail order company that sent users a monthly catalogue as well as games from its main selection that recipients could decide to keep or send back. Marketed as a double pack with *Total Eclipse* for a combined price of £7.99 (down from a RRP of £14.95), the ruse alienated those who had the first game. But it worked well for Incentive Software. "The Home Computer Club had a lot of buying power," Ian says.

The deal had been struck, because Incentive wanted to become the club's Game of the Month. "That would get us a big order," he explains. "So to convince them to choose us, I offered them an additional game. As the game format was already done, it only took me a few weeks to create and implement the extra environment and puzzles." The result was a game with less impact than *Total Eclipse* but one that was nevertheless very pleasing for fans.

For those that bought the game, more of the same was on offer in a world that was, again, built of shaded geometric blocks. The method of play was also the same, with exploration top of the bill. But the overall objective was different. Rather than seek to find a point in the pyramid, gamers had to locate 12 fragments of a statue hidden in one rather than two hours. It entailed working out the best route, exploring the maze while dealing



» [Amstrad CPC] Just like the first game, *Total Eclipse II* was split between the main screen and the instrument panel

The many iterations of Major Development's engine



CASTLE MASTER II: THE CRYPT

1990

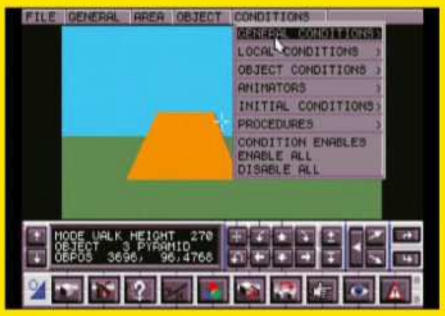
■ This was not only released as part of a double compilation involving the debut game, it was also bundled into the Virtual Worlds pack along with *Driller* and *Total Eclipse*. It tasked players with escaping from the castle and solving difficult puzzles but it essentially offered more of the same.



3D CONSTRUCTION KIT

1991

■ Incentive allowed gamers to play around with the Freescape system itself by producing a user-friendly environment designer that let you use a host of buttons to create any object you wanted. You could then learn the programming language to code your own games or simply explore your own worlds.



3D CONSTRUCTION KIT 2

1992

■ This version was produced for the Atari ST, Amiga and MS-DOS and it made use of the Freescape III engine. There were more controls and users could also use rounded objects. It was also possible to add sound effects and a host of preproduced art, making for an all-round great tool.



» [Amstrad CPC] *Total Eclipse II* had players seeking to free their beloved within a pyramid, continuing the first game's story

with the collection of gold, ankhs and water. Players would have to figure how to get past path-obstructing blocks and traverse floors that would appear and disappear in a pattern. The emphasis was on acute observation, and the relative lack of speed allowed you ample chance to view your surroundings.

There were also some quirks. An invisible maze proved tricky to solve. "I called it the illogical maze," Ian says, "and it was meant to be hard to give the serious games a challenge. I think only trial-and-error would solve it without a solution." Making life easy for Ian, however, was the scripting system used in Freescape. Called the Freescape Command Language, it allowed interactive elements to be added to the worlds. "Chris built this into the code for me to build environment and the intelligent aspects of the objects within," explains Ian. "It was in hex and I could enter the objects into the game and assign commands to them at the same time."



PUBLISHER HIGHLIGHTS

SPLAT! (PICTURED)
SYSTEM: VARIOUS
YEAR: 1983

THE GRAPHIC ADVENTURE CREATOR
SYSTEM: VARIOUS
YEAR: 1986

WINTER WONDERLAND
SYSTEM: VARIOUS
YEAR: 1986

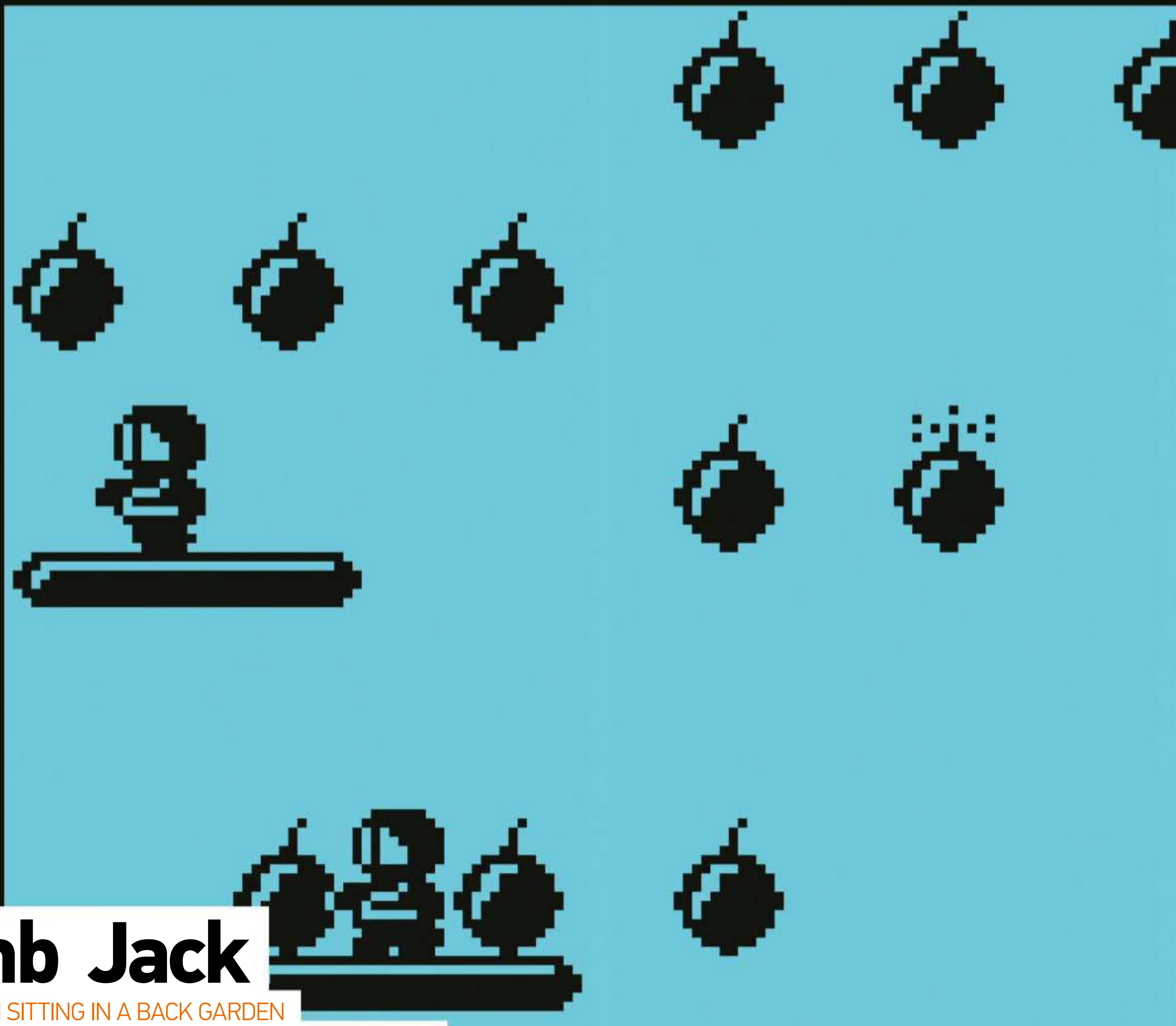
Paul says this was crucial in being able to make the 3D games so quickly, maximising revenues for Incentive at a time when "the next big thing" was always around the corner. "The FCL 'language' was key to creating engaging games against very ambitious timeframes," he explains. "Separating the concerns of 'art and design' from 'development' allowed Ian to work on level designs while the engine team worked on the engine code. It was an efficient workflow that incidentally is the way most game studios work now. This would have been the enabling factor in being able to release Total *Eclipse II* so quickly, as it would mostly have been Ian's involvement in designing new levels, with little to no demand on the development team."

It left time for some fun marketing ideas: getting a high score in this game put players in the position of potentially winning a £2,000 holiday to Hawaii where the victor would be able to see a total eclipse for real. Many more CPC owners got to play the full version of *Sphinx Jinx* in March 1992 when it was placed on the front cover of *Amstrad Action* issue 78. It also appeared on *Your Sinclair*'s 76th issue and on *Commodore Format* issue 18.



» *Total Eclipse* won over the hearts of the gaming press, particularly *Crash*, which awarded it 93% in its review.

Incentive Software followed *Total Eclipse II* with *Castle Master, Castle Master II: The Crypt*, 3D *Construction Kit* and *3D Construction Kit II*, the latter two putting the creation of expansive worlds in the hands of players. With each game, it was clear Incentive had something special on its hands. "We had a great team which did amazing things, pushing the boundaries of performance and memory," Ian says. At the same time, Ian reckons the team also "moved fast", something that couldn't be said of the games themselves. But, as Paul concludes, "I don't think enough can be said about the engine aspect of Freescape and the *Total Eclipse* games." The bar had been truly raised. ★



Bomb Jack

BETTER THAN SITTING IN A BACK GARDEN



» ZX SPECTRUM » ELITE SYSTEMS » 1986

Coming from a one-parent family my mum often used to have to work multiple shifts in order to keep a roof over our heads. This inevitably meant that sometimes she was still working when my siblings and I arrived home from school. I used to hate these moments, as I would typically have to wait in the back garden along with my brothers and sisters and sometimes we could be waiting for a good hour before she finally got home. That all changed, however, when the Vincent family moved in next door to us.

There was always someone home at the Vincent household and they also had a Spectrum, which was great news, as I was allowed to play on it while I waited for mum to arrive home from work. Thanks to the Vincent's 48k Spectrum, I was introduced to a variety of great arcade conversions, including a rather cracking version of *Green Beret*, *Renegade* and of course *Bomb Jack*, which I used to enjoy in our local arcade on Poole Quay.

While I had *Bomb Jack* on the Amstrad I have to admit that I have a special fondness for the Spectrum outing. It's a surprisingly zippy version of the game that also features some great looking sprite design. Even today it holds up very well and it wasn't long before I was getting some decent high scores on it like I did back in the day. As with the original arcade game the aim is to ideally collect sparking bombs in the correct order, whilst avoiding the numerous enemies found onscreen. It's simple, but the layouts soon get quite tricky and the later stages require a tremendous amount of skill to complete.

I would spend countless hours playing *Bomb Jack* around the Vincents' house and it got to a stage that I would walk home in the hope that my mum was still working so I could immediately head over there and get a few more games in. Thank goodness she never trusted me enough to let me have my own key.


PLAYER1
4690
200 200 200
JACK
PLAYER2
0

CREATING THE

C64 GAMES SYSTEM



» [C64GS] Hugo the Troll collects gold and avoids dynamite in *Skaermtrolden Hugo*.



» [C64GS] *Robocop 2* felt more like a console game, including this target-shooting interlude.

The Commodore 64 Games System is often called one of the worst consoles ever. Andrew Fisher looks back at what went wrong, and how it inspired some impressive games

There is no denying the C64GS was a commercial failure, with under 20,000 units being sold. The idea grew from Commodore Germany, with its 1989 bundle of a C64 computer, joystick and Super Games cartridge (with *International Soccer, Colossus Chess* and *Silicon Syborgs*).

"We were first contacted by Commodore and Sonopress in May 1990," says John Twiddy, Vivid Image cofounder. "I had been working with Sonopress for several years doing Cyberload protection on tape mastering so there was already quite a relationship. My first love had been electronics and I had been quite involved in the Trilogic Expert Cartridge. Therefore, I started by suggesting the required circuitry in early June. This would allow a 4Mbit EPROM/ROM to be bank switched in 8KB chunks. The hardware I had already created to develop for the Expert was ideally suited for emulating the cartridge, so I set about creating a development system which we hoped would make it much easier for other publishers to develop and master their games. Commodore also asked us to create the first compilation cartridge which would be sold with the console."





» [C64GS] Navy Seals was one of several games that Ocean released for the system.

John remembers a particular with the prototypes. "Sonopress set about designing the circuit boards based on my design and prototype boards were ordered at the same time as manufacturing of many thousands of the finished product, which needed to be kicked off to production due to the short deadlines. This in itself created a lot of stress, especially when the prototypes were due to come back from manufacture whilst I was away on holiday on a remote Greek island. I managed to phone the office on the day they were due to be tested and was told that the circuit board did not work. Since no one at the office understood why they did not work, we then were desperately trying to arrange for me to return to England to find out why. Luckily, at the last minute, just before I was about to set off, leaving my girlfriend on the island, it was discovered that the reason the prototype did not work was because the circuit board was double-sided and although the finished board would have plated through holes, the prototype needed to be soldered on both sides and the person who had assembled it did not realise this. The local taverna received a lot of custom from me that night."

Vivid cofounder Mev Dinc also remembers working on the system. "We had a special relationship with Commodore as we did some great work on C64 and Amiga," he says. "I believe we sold over 15 ▶



» From top to bottom: John Twiddy, Mev Dinic and Paul Hughes.



THE COMPETITORS

The systems that the C64GS went up against at the time



AMSTRAD GX4000

■ Launched alongside the Plus range in 1990, the GX4000 had better graphics and sound specifications than the C64GS. Ocean was its biggest supporter, providing pack-in game *Burnin' Rubber* (based on *WEC Le Mans*). It was still 8-bit technology, however, and lacked games, with Amstrad stopping production after just a few months.



MASTER SYSTEM

■ Mastertronic was distributor for the Master System in the UK, but a difficult launch saw the company bought out by Virgin. By 1990 the console had sold more units than the NES in Europe, and the Power Base converter gave backwards compatibility for those upgrading to the Mega Drive.



NES

■ UK sales were strong at the time of the C64GS's launch, thanks to the *Teenage Mutant Hero Turtles* bundle. Toy company Mattel handled the console's distribution as Nintendo had yet to set up a dedicated European operation. The SNES was still more than a year away from UK shelves.



MEGA DRIVE

■ It would be Virgin Mastertronic that handled the Mega Drive's September 1990 launch in Europe, with the original pack-in title *Altered Beast* showing off the power of the 16-bit console. 40,000 machines were shipped to the UK initially, giving it a vital head-start over the SNES.

▶ development kits, which is quite an achievement when you consider the number of publishers at the time!" The GS was not the only console Mev and John worked on. "We were involved with the early days of the ill-fated Konix system. John is one of the best programmers I know, his excellent knowledge coupled with great programming ability allowed us to experiment with stuff." As well as a four-game cartridge (*International Soccer, Klax, Flimbo's Quest* and *Fiendish Freddy's Big Top O' Fun*), the GS came with Cheetah's Annihilator joystick. This had a secondary fire button on the base, allowing extra functions in-game. "The idea was good but not many games made real use of it," says Mev, and the joystick itself was notoriously poor.

John lists the cartridge's benefits. "The advantages of speed, protection from piracy and durability were significant, although the downside was cost and also a longer manufacture time." Originally, C64 cartridges were only 16KB, but this new generation allowed much greater memory. "Cartridges were able to occupy an 8K bank within the C64's memory space and therefore the system of bank switching allowed almost limitless memory," John says. "However, the cost of the ROMs/EPROMs meant that realistically 512KB tended to be the largest it was sensible to go up to. Going larger put up the price significantly." Vivid's own games, including *Hammerfist* and *First Samurai* never made it to cartridge. "We never considered this because the cost of manufacture was too high for us as a small company."



» [C64GS] *Cyberball* on cartridge had a larger playbook than the tape and disk versions.



» The front of the C64GS box, and the back (inset) detailing the four games that came bundled with it.

Commodore launched the GS in December 1990 into a turbulent market. At trade shows before launch, up to 100 games were promised "by Christmas" – but support dried up. Ocean created the majority of the 28 official GS games with its own cartridge development system, as developer Paul Hughes recalls. "Dave Collier wandered into my room with a foot-long cartridge and told me about the hardware he was designing for 'a console-based C64' that was coming out. It was basically a bank switchable ROM that mapped itself into memory and was then shunted around the C64's RAM as required." There was another advantage in going it alone. "It meant Ocean could control the supply chain; we didn't have to license anyone else's system or designs and we could manufacture as many as we needed when we needed them without going through a third party," continues Paul. Size mattered to Ocean, proclaiming its 8Mbit cartridges in adverts. "As there was quite a large turnaround from sending the ROM image out to the

Photos: Mat Allen

THE ESSENTIAL CARTRIDGES



BATTLE COMMAND

■ Realtime's impressive 3D tank game stored lookup tables in the cartridge memory to speed up plotting its textured polygons and wireframe objects. With ten increasingly difficult missions, and a clever password system to save your progress, a pointer-driven interface and an array of weapons, there is a lot of depth here.

POWER PLAY

■ A great three-game compilation from The Disc Company, with two games reprogrammed to work from cartridge. Sensible's superb football sim *Microprose Soccer*, Geoff Crammond's daredevil *Stunt Car Racer* (pictured) and the platform action of *Rick Dangerous* were great value for the price and is certainly worth tracking down today.





MYTH – HISTORY IN THE MAKING

■ A time-travelling hero in blue jeans takes on creatures from Ancient Greece, Egypt and Viking myths. System 3's game sports amazing animation, beautiful backgrounds, top-notch sound and some interesting gameplay twists (including a shoot-'em-up level) make this legendary.



» [C64GS] The impressive introductory sequence of *Terminator 2* includes a gigantic scrolling Terminator.



» [C64GS] They may not have been massively enhanced, but games like *Microprose Soccer* were still fun to play.

> **"IF MEMORY SERVES EVEN THE CASSETTE DECK CONNECTOR WAS STILL INSIDE THERE"**
>
> Paul Hughes

manufacturers to receiving cartridges back (weeks, rather than hours with cassettes) you had to be smart with your orders," Paul says. "You didn't want to order a huge quantity of 256K ROMs if you didn't think you could sell them all. Only the perceived 'slam dunk' titles got the bigger ROMs. Carts usually started at 64K and went up to 256K. I did the low-level kernel that let the devs load from cartridge to anywhere they wanted in memory just as if it was coming off tape or disk. Because ROM was so expensive I had to compress the heck out of the code and data; the developers just had code that said, 'Give me this block of data and put it here,' and under the hood I was bank switching in blocks of data and decompressing it in place to the required location."

Ocean's titles made use of the cartridge capacity, says Paul. "*Navy SEALs* was a good example. Steve Thomson did some beautiful extra screens between each level which would've take a minute or so to load off tape, but off cartridge it was almost instant. *Battle Command* is a good example of quickly mapping different look-up tables in and out of RAM as they were needed." *Chase HQ II* used the *Annihilator*'s extra button for Nitro boosts, while in *Battle Command* it activated the pointer used to change tank controls. John's favourite GS game is a System 3 title. "*Ninja Remix* was an ideal match because the game on cassette/disk was split into so many loads which interfered with gameplay."

Looking back, with hindsight, Paul says, "The GS, well, it was a bit of a stinker. I remember Gary Bracey bringing in the final hardware to my office and Dave Collier immediately taking a screwdriver to it and opening it up – it really was just a C64 motherboard with a ribbon connector. If memory serves even the cassette deck connector was still inside there! Clearly Nintendo were taking over the world with their cartridge based games and the GS was a way to rebadge old stock of their aging hardware. Alas everyone saw through the façade. Why buy a GS when you could just plug the cartridge into your C64?"

Commodore failed to promote the cartridges as being fully compatible with the computer as well, but Ocean made that clear on all of its cartridge advertising. Unsold consoles were turned back into computers, and hackers have since added keyboards and drives to the console.

John Twiddy reflects on the GS. "At the time I thought the C64GS was a really good idea," he remembers. It had the potential to transform the traditionally slow loading speeds on the C64 but one of the biggest problems was that without a keyboard, converting many games was too difficult and game developed solely for the C64GS had a limited market." Compared to its competitors, how does John see the GS? "I am probably too biased here because the C64 was such a favourite of mine. Although I have to admit I was surprised that the C64GS was such a clumpy shape when I finally saw the finished product." Mev adds, "The idea was good, but I'm afraid almost all the people involved saw it as an opportunity to make a quick and extra buck by simply putting existing games on the machine."

Collectors will want to track down some of the GS's now-rare titles. Ocean's *Double Dragon* used the cartridge to store extra enemy types, and was only on sale at trade shows. Dinamic released several cartridges, including motorbike sim *Aspar GP Master*. Atrax licensed existing games and made several cartridge compilations. And SilverRock made games that are hard to track down.

The GS cartridge format lives on, however, with many quality releases. Paul Koller has wowed the audience with his demakes – including the recent *LuftrauserZ*. James Monkman of RGCD decided to specialise in cartridge games as a publisher. Many RGCD releases are specifically designed to be GS-compatible.

The GS was not a success, but it led to top quality releases at the time and a new wave of cartridge games now. The console is highly sought after, selling for many times its original retail price. Its legacy has lasted longer than Commodore, which closed its doors in 1994.

With thanks to John, Mev, and Paul, and Mat Allen for photos.



PANG

■ It was a close call between this, *Toki* and *Space Gun* for best arcade conversion on the Commodore 64 Games System. *Pang* wins, however, thanks to the beautiful backgrounds as our heroes travel the globe bursting bubbles. All of the gameplay, power-ups and presentation are present, and instant access avoids a long multiload.





LUFTRAUSERZ

■ Paul Koller's coding skill has recreated the awesome dogfighting game by Vlambeer, including all the many gun and engine upgrades (which are unlocked by completing missions). With fast scrolling and masses of bullets onscreen, the game is a challenge – and the EEPROM allows progress to be saved to the game cartridge.



» Domark released three fairly disappointing Tengen arcade conversions for the Games System.

The Making Of Renegade III: The Final Chapter

Renegade III swapped the brilliant backstreet thuggery of the first two games for an ill-conceived romp through time. Martyn Carroll finds out how 'The Final Chapter' became 'The Final Insult' for fans of the series

You have to feel for the folk that made *Renegade III*. They spent *eight weeks* making a game almost *30 years ago* and they're still getting beef about it. A while back the game's graphic artist Ivan Horn popped up on the World Of Spectrum forums to address a question about a different game entirely and the thread quickly turned into a *Renegade III* interrogation. "What happened? What were you thinking? Just *why*!"

Ivan didn't reply and never posted again, but after some coaxing he agreed to chat to us about the much-maligned third game. The obvious question is why did Ocean decide to change a winning formula by introducing a time-travelling backstory and an overall lighter tone? "From what I remember the decision for the time-travelling element of the game came from somewhere in management," he says. "I'm not certain if this came from Gary Bracey or someone else though." Ocean's Mr Bracey is reticent on the subject and cannot recall the details, although he believes it was a case of trying something new. The original coin-op conversion had already received an excellent if opportunistic sequel in *Target: Renegade*, so if Ocean was going to take another trip to the well it felt obliged to try a fresh approach.



» [Amstrad CPC] Oh mummy! Our hero brings his brand of street justice to Ancient Egypt.



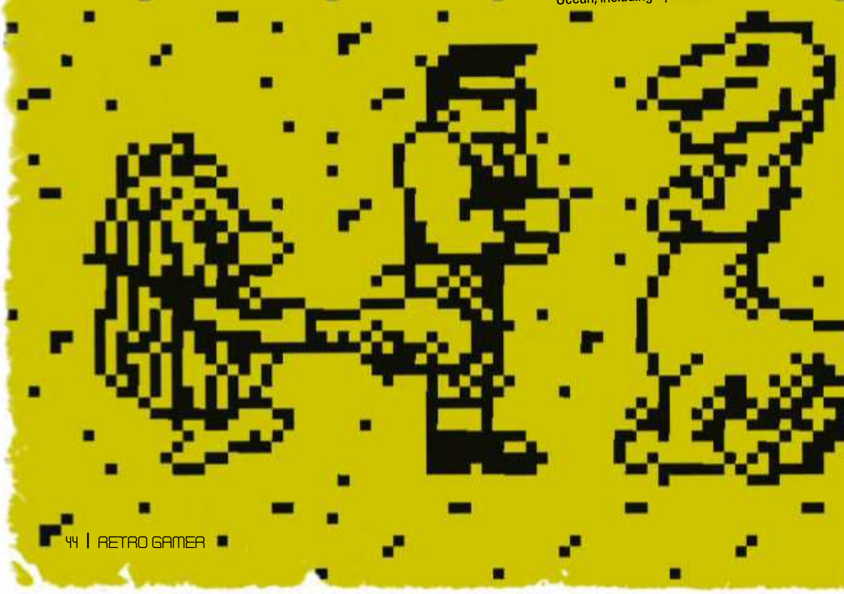
» Ivan Horn worked on various games at Ocean, including *Operation Wolf*.



» [ZX Spectrum] The game introduced platforming elements that merely added to the misery.

Ivan teamed up with his regular coding partner Andrew Deakin on the Z80 versions of the game (the Spectrum was the lead version and the CPC and MSX releases were based on that, while the C64 version was developed separately by Zach Townsend). "Andrew Deakin was very good to work with," says Ivan. "We'd been friends since we were about 15 years old so we worked well together." Indeed, the pair had already produced a string of conversions for Ocean, including *Athena*, *Combat School* and *Operation Wolf*. One of the biggest criticisms levelled at the game was the lack of fighting moves compared to the first two titles.

This was largely due to the sheer number of different sprites used. Whereas before the thugs shared the same 'legs' and other characteristics, the new range of enemies (dinosaurs, knights, robots and so on) varied in size and shape and this ate up



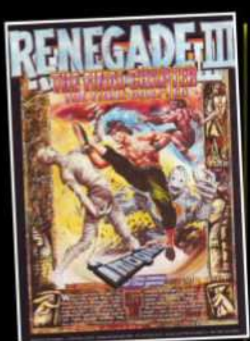


» [ZX Spectrum] A 2015 mod by *Renegade* fan Rafal Miazga improves the game by adding more colour.



» [C64] This was the only version where you could smash baddies in the face with a weapon.

> **"At the time I'm sure we were all proud of what we'd achieved"**
>
> Ivan Horn



IN THE KNOW

» **PUBLISHER:** OCEAN SOFTWARE

» **DEVELOPER:** IMAGINE SOFTWARE

» **RELEASED:** 1989

» **PLATFORM:** SPECTRUM, CPC,

DEVELOPER HIGHLIGHTS

COMBAT SCHOOL
SYSTEM: ZX SPECTRUM
YEAR: 1987

OPERATION WOLF
SYSTEM: ZX SPECTRUM, CPC, MSX
YEAR: 1988

ROBOCOP 2
SYSTEM: ZX SPECTRUM, CPC+
YEAR: 1990

a lot of valuable memory. "Looking at the animations now I can see they're quite limited, so possibly we sacrificed the variety of actions for the variety of characters. I can also see that we were taking a few liberties, from the obvious Captain Caveman rip-off to the Karloff-style mummies!"

Another criticism was the lack of colour in the Spectrum version. "Andrew and I tended to make scrolling games using monochrome graphics, which allowed for smoother scrolling and avoided the need to hide the colour attributes setup on the Spectrum. I think that we were so used to making monochrome games with scrolling that I went ahead with the graphics for it that way. Possibly there was a plan early on to have scrolling instead of flick-screen which would be an explanation." All this compromise does beg the question: why didn't the team adapt the code from *Target: Renegade*? "Back then there was very little use of other people's code. I guess it had something to do with there being typically one coder per project, so there was more of an 'all my own work' ethos," he says. A further grievance is the absence of the second game's celebrated co-op mode. "I don't actually know why that change was made compared with the previous game," concedes Ivan. "My guess would be that it was dropped to simplify things."

The game's soundtrack was written by Ocean's musician Jonathan Dunn who provided suitable tunes for the different 'ages'. "It was good fun to have such definite themes to follow," he recalls. "I'd had a few ideas knocking around which suited some of the time zones, so it was good to be able to use them." Jonathan was quoted in a preview of the game that appeared in *Sinclair User* magazine. Speaking for the team, Jonathan of 1989 said: "We think we've done a pretty good sequel. It's a bit tongue in cheek but a bit of humour doesn't hurt does it?" To us that sounds like faint praise. "I doubt this was faint praise," he says, looking back. "At the time I'm sure we were all proud of what we'd achieved. As always the game was done incredibly quickly to a very tight deadline."

The game may get roasted by fans, but let's not forget that it reviewed well on release. It received a *Crash* Smash (91%) and a *Zzap* Sizzler (90%). The consensus was that *Renegade III* was a fun and novel twist on the typical beat-'em-up formula. And that right there was the problem – it wasn't a *Renegade* game, and had it been called something generic like *Time Warrior* (or maybe *Smack To The Future*) then it would have been overlooked and long forgotten.

"Neither of us had worked on a fighting game before and it felt like it was an unnecessary follow-up to the two previous games," says Ivan, mitigating. "It's not one of my favourite games that I worked on, put it that way." Don't worry Ivan, it's fine. After all, no actual childhoods were ruined by *Renegade III*. ★



» [Amiga] A 16-bit version was advertised but never released. The Amiga version later leaked out.

CONVERSION CAPERS



ZX SPECTRUM

■ The most disappointing version, as the first two games are held in such high regard on the Spectrum. It's ruined by slack controls and gallingly repetitive gameplay. Progression is more of a chore than a challenge.



AMSTRAD CPC

■ The colour graphics add life to the sprites, bringing out some of the humour, but everything is still tarred with the same infuriating gameplay. To compound matters, the game slows down noticeably when the screen is busy.



MSX

■ What could possibly be worse than the Spectrum version of *Renegade III*? The same version but running much slower and without the saving grace of Jon Dunn's soundtrack. Avoid the MSX version, and then avoid it again.



COMMODORE 64

■ Could a different team drag *Renegade III* out of the mire? Short answer: no. Despite scrolling backgrounds and the inclusion of weapons, the game is still wretched. In this version you bizarrely lose health if you don't continually fight.

POWER

WHEN IT COMES TO ARCADE RACING GAMES FEW CAN OUTDO, OUTMANEUVER OR OUTSHINE SEGA'S POWER DRIFT. MARTYN CARROLL BUCKLES UP AND LOOKS BACK AT YU SUZUKI'S WILDEST RIDE



When Sega's 'Super Scaler' arcade series took off, it really did take off. *Hang-On, Enduro Racer* and *OutRun* proved that the hardware was perfect for racing games, but then the series soared skyward with the arrival of *After Burner* and *Thunder Blade* in 1987.

This was largely due to the introduction of Sega's X-Board hardware which added sprite and background rotational effects to the existing scaling capabilities, making it ideal for aerial titles – particularly *After Burner* and its celebrated barrel rolls.

This trend continued with the debut of the Y-Board in 1988 which was powered by *three* 68000 CPUs and delivered even more outlandish visual effects. The first title to utilise the Y-Board was *Galaxy Force*, a 3D space shooter which pushed the scaling and rotational effects to dizzying heights. The Y-Board was a serious piece of kit, but was it a good fit for other types of game? Could it be the engine for a racing game? Perhaps – but to justify its use, it would surely need to be ridiculous and completely over-the-top. And that's precisely what Sega's star designer Yu Suzuki delivered with *Power Drift*.

On paper *Power Drift* is a fairly typical racing game. You choose one of 12 wacky characters (who resemble the cast of the worst US sitcom) and you have to complete four laps of a short circular stage. If you finish in third place or higher you move to the next stage. If you successfully finish five stages you complete the course and the game ends. There are five different courses to choose from, so overall there are 25 stages (plus a couple of neat bonus stages). It's pretty standard, humdrum stuff.

But the racing action itself is anything but routine – and this becomes apparent when you reach the very first corner. On turning, the viewpoint tilts sharply around the rear of your vehicle. It's an unusual and arresting effect, and it happens almost constantly due to number of twists and turns you encounter ▶



» [Arcade] It's perhaps better to hang back a bit when the track is jammed up with racers to avoid spinning out.



DRIFT



» [Arcade] The Japanese version of the game includes spoof roadside ads for 'Bubweiser' and 'Coma Cola'.

"NO WE NEVER SAW ANY OF THE ASSETS OF THE ARCADE GAME. WE DID EVERYTHING FROM SCRATCH"

John Mullins

ROGUE'S GALLERY

A closer look at Power Drift's dirty dozen





DRIFT MASTER

Tips and tricks to help you finish in front of the rabble



GEAR UP

■ Races are short so a strong start is essential. The fastest you can travel in low gear is 169kph, so ideally you need to hit high gear around 140kph. Don't forget to switch back to low if you wipe out.



BRAKING BAD

■ Don't bother braking. If you're sliding towards oblivion on a corner just ease off the accelerator. If there's a tricky section of track ahead, briefly switch to low gear to lose a chunk of speed.



COLLISION WAIVER

■ The collision detection in *Power Drift* is often suspect and you can use this to your advantage. This works best when cutting corners, as you'll often pass straight through roadside objects.



LAPPED DOGS

■ As you're racing against 11 other mad dogs on short circuits you'll start to lap backmarkers on the third or fourth lap. Beware of this as they can hold up your progress and may deny you a top-three finish.



WHACKED REAR VIEW

■ Although it's not advertised, you can look behind you by hitting the Start button. This can be useful after a crash as it's common to get bashed by passing cars as you're getting back up to speed.



SEGA ALL-STARS

■ If you manage to finish first on all five stages you'll unlock an extra stage. On courses A, C and D you pilot the F-14 from *After Burner*, and on courses B and D you ride the bike from *Super Hang-On*.





(despite the title, no actual drifting is involved). Furthermore, the tracks are more like rollercoasters than roads, with bridges climbing high into the air and then dropping sharply back down to earth. All of this plays out at a frantic pace that barely lets up – even when you crash. Whereas Sega's early racing games revelled in crowd-pleasing crashes, it was ultimately grating to see your precious seconds ticking away. *Power Drift* does away with all that and after a bad smash you're dropped straight back onto the track and given a rolling start.

The game really does showcase the power of the Y-Board hardware. However, as this is a Sega simulator, the game is only part of the story. For the true experience you had to sample *Power Drift* in its full-fat form. The 'Deluxe' cab resembles the famous sit-down *OutRun* model, but the motorised movement is more jarring and pronounced. In fact, on the sharpest of corners the cab tilts up to 20 degrees to the left or right. Sega even fitted a seat belt, which was probably done more in the name of gimmickry than safety. There was also the standard upright model which dispensed with the movement and replaced the sit-down's 26-inch monitor with a 19-inch one. The game suffered in this more compact form, and perhaps exposed some of the gameplay shortcomings.





» [Arcade] A familiar site, but thankfully a brief one as the game throws you straight back into the action.





» [Arcade] The game's rollercoaster-style dips really set the game apart from other racers of the era.

The reaction to the game from the specialist press was largely positive, albeit with a lot of "strap in or lose your breakfast" quips and other rad remarks. The *Sinclair User* staff were massive fans, calling it "the racing game to end all racing games", no less, and awarding it 10/10. Somewhat less enthusiastic was Newsfield's Robin Hogg, who wrote in *The Games Machine* that "up against *Chase HQ* it doesn't fare too well". One criticism that everybody shared was the price to play, as the Deluxe cab cost £1 a go. At the time most coin-ops were still 20p per credit in the UK, and a few were testing the water at 30p. £1 was madness and this probably excluded a lot of players. "At a quid a go it's fairly expensive but nevertheless it's just one game you've got to give a whirl," wrote Clare Edgeley in *C&VG*.

Having previously scored a huge hit with its home conversions of *After Burner*, Activision snapped up the computer rights and readied the game for the Christmas 1989 period. Of those the Commodore 64 version was the most playable (though least accurate) and the Atari ST was the least playable (though most accurate). A solid version was later released for the PC Engine in 1990, but bizarrely the game was never converted to a Sega home console, despite sister Y-Board title *Galaxy Force* appearing on both the Master System and Mega Drive. The game was

"WE COULD NEVER MATCH [THE ARCADE VERSION] ON THE HOME COMPUTERS OF THE TIME"

John Mullins

DEVELOPER Q&A

John Mullins took on porting Power Drift to 8-bit computers



How did you land the job of *Power Drift* conversion job?

I was working at Sentient Software and we were approached to handle the Z80 versions of the game. We'd previously been involved in the *Wec Le Mans* conversion for Ocean which probably helped. Midway through the project Sentient ran out of money and closed down. I approached our contact at Activision, Charles Cecil, about finishing the project and myself and Clive Paul took on the task. I wrote the code and Clive did the graphics. Uncle Art (Dave Lowe) supplied the sound.

***Power Drift* was a monster in the arcades. How did you even begin to approach it?**

I never really thought about the arcade hardware. We knew we could never match that on the home computers of the time anyway, so we just aimed to do the best we could and at least make it recognisable and get the spirit of the arcade game in there.

Did you receive assets from Sega?

No we never saw any of the assets of the arcade game. We did everything from scratch and simply used the arcade version as a reference. Of course we had a large library of our own from previous titles we'd been involved with and that was a big help. I had the arcade machine on free play in my kitchen for a few months. The kids who lived in my street couldn't believe it.

What did you think of original?

When we first got hold of the machine we thought it was a great game, but six months later I hated it! It was a typical arcade game – two fairly easy stages to start with and then a monstrously difficult third stage.

You were responsible for the Spectrum, Amstrad CPC and MSX versions. Was there a lead version?

We always led with the Spectrum version. The Amstrad CPC would follow and the MSX was always an afterthought. The truth is though, once the Spectrum version was done, the CPC was already 85 per cent complete and the MSX was pretty much 100 per cent complete. It really was just a matter of linking in some different libraries and replacing graphic and sound assets.

Looking back was it an enjoyable conversion to work on?

I do have some good memories from that time. I remember spending two or three weeks down at Activision's offices in Reading finishing up. It was pretty high pressure getting all of the loose ends tied up but I met some great people down there and had a few really good nights 'relaxing' after work was finished.



» [Amstrad CPC] *Power Drift* on the Amstrad is a commendable conversion, with vivid colour and a decent amount of speed.



POWER DRIFT

COIN-OP CONVERSIONS

How the home versions lined up against one another



COMMODORE 64 1989

■ Coder Chris Butler showcased his skills with this wonderful conversion that's a real technical marvel. Visually, it's quite basic but it moves at a good clip and plays really well. Easily the best home computer version available.

ZX SPECTRUM 1989

■ The version for the Speccy plays well. The speed is fine, although the controls are sluggish, leading to frustration at times. Visually, it's a bit of a monochrome mess, but overall you can (just about) tell what game it's trying to be.



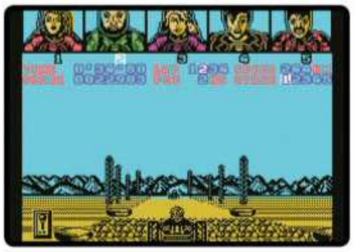


AMSTRAD CPC 1989

■ A nice surprise for anyone expecting a quick Speccy port. It's sharing the same code but it benefits from a good splash of colour. Thankfully this hasn't scarified the speed too much, although the graphics are a little blocky in places.

MSX 1989

■ No surprise for anyone expecting a quick Speccy port, as that's exactly what you've got here. It more or less retains the speed, so we can't complain too much, although we all know that the MSX could do more.





ATARI ST 1989

■ Oh boy. Coding enigma ZZKJ did a grand job bringing *Super Hang-On* to the 16-bit computers, but *Power Drift* was obviously a step too far. The graphics are great but the framerate is really poor and the end result is nigh-on unplayable.

AMIGA 1989

■ Almost identical to the sorry ST version. Although the framerate is improved, your kart still stutters in almost slideshow-like fashion. The only other addition is in-game music: the ST version had to make do with just sound effects.





PC/DOS 1989

■ An interesting attempt, in that like the C64 version, it doesn't try to replicate the look of the original too closely and instead opts to create a fast and fun racing game. It's a damn sight more enjoyable that the Amiga and ST versions.

PC ENGINE 1990

■ Arriving after the buzz of the coin-op had died down, and in Japan only, the PC Engine version is largely overlooked – but it shouldn't be as it manages to copy the look and feel of the arcade game to a decent degree.





SEGA SATURN 1998

■ Released in Japan as part of the original *Sega Ages* series, this is a close conversion of the coin-op (and yes it tilts!). It runs at 30fps rather than the original's 60fps, but this hardly detracts, and it introduces a nice bunch of extras.





DREAMCAST 2001

■ Yet another Japanese-only release, included as part of the *Yu Suzuki Game Works* compilation. This is essentially the arcade version, as-is, running at 60fps and all the jazz. The icing on the cake – it plays well using the DC's analog stick.

NINTENDO 3DS 2015

■ The *3D Sega Classics* series for 3DS delivers once again with this delightful remaster. As you'd expect it comes packed with options and extras, and *Power Drift* never looked better then when played in 3D, three inches from your face.





» [Arcade] That first-place finish is in sight, but watch out: second place is just behind.

reported to be in development for the Mega Drive, and later the Mega-CD, but ultimately it was never released on either cart or disc. Meanwhile Game Gear owners were treated to the *Sonic Drift* games – in these entries the tracks were flat, but the vehicle movement and vibrant character gestures were pulled straight from *Power Drift*.

In 1998 the game graced the Sega Saturn as an entry in the Japanese Sega Ages range. This version is almost arcade perfect and includes various extras including rearranged music, an automatic gear option and a new Grand Prix mode (which lets you play through the five courses in succession). Three years later it was included on the Yu Suzuki Games Works compilation for the Dreamcast alongside four other hits from the main man. Like the Saturn version this was never released outside Japan.

Happily in 2016 the Nintendo 3DS version of the game did receive a Western release as part of the *Sega 3D Classics Collection*. Like all of M2's 3DS remasters, this is a superb and affectionate update that plays brilliantly in 3D. As yet the game has not received a standalone released on the European and US eShops, but it has in Japan where – surprise surprise – it features a unique 'Special Mode'. Not only does this unlockable mode feature musical medleys from other Sega hits, but the 12 racers have been replaced by Sega stalwarts (everyone from Shinobi and Alex Kid to the *OutRun* flagman and 'Mr Hang-On'). That's all the retro love *Power Drift* could expect to get – although saying that, it's a matter of fact that *Power Drift* is the only game in the Yu Suzuki Games Works collection not to be playable in the *Shenmue* series. Could *Power Drift* finally appear in the upcoming *Shenmue III*? Even Ryo might crack a smile at that prospect.

KILLER TRACKS

A selection of some of the wildest stages in the games



COURSE A, STAGE 2

■ The highlight of Course A is this impressive big dipper-style track which drops sharply right after the start line. The raised area banks hard into a sharp turn before snaking back around, so kill your speed a bit on the approach.

COURSE C, STAGE 5

■ The final track in Course C is a gigantic wooden bridge that's completely suspended in the air. There are no barriers here, so you need to take care not to plummet to the ground. Picture *Mario Kart*'s Rainbow Road, but harder.





COURSE E, STAGE 1

■ The opening track to Course E is another suspended track that snakes around in a giant loop. This one sports barriers, but you bounce wildly off them so take care and concentrate on your racer's positioning.

COURSE E, STAGE 4

■ A few tracks contain jumps (or rather incomplete bridges), and this one contains two, including the biggest jump in the game. You need to build up a good amount of speed if you want to clear it, so put the pedal to the metal!





COURSE B/D, EXTRA STAGE

■ The best of *Power Drift*'s two bonus stages sees you ride the *Super Hang-On* bike around a dipping and twisting track. It's the closest thing you are going to get to a third *Super Hang-On* arcade game.





» [Mega Drive] This exterior loop is a crazy level design feature that wouldn't become commonplace until the *Sonic Advance* series.

SONIC CRACKERS

Sonic and Tails had always seemed like an inseparable duo, but not quite in the way that Sega envisioned in this experimental platform game engine test…

IN THE KNOW

» **PUBLISHER:** Sega
» **DEVELOPER:** Sega
» **SYSTEM:** Mega Drive
» **DUE FOR RELEASE:** 1995

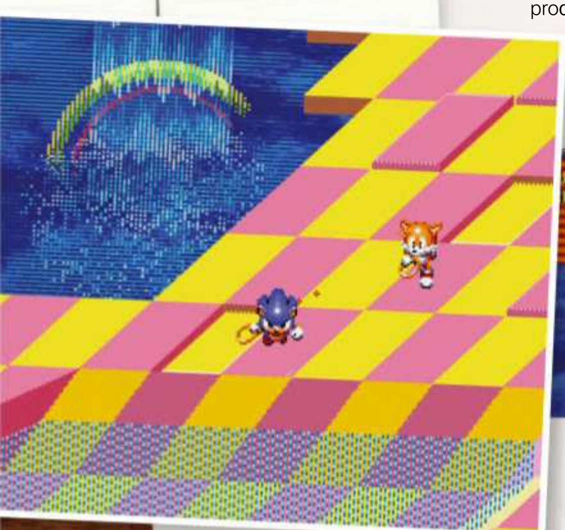
It shouldn't be a surprise that Sega was planning to saturate the market with *Sonic* games at its mid-Nineties peak. Following the release of *Sonic 3* in 1994, three major *Sonic* projects were in development internally at Sega. *Sonic & Knuckles* was late in production with the main Japanese team at Sega Technical Institute. The American team at Sega Technical Institute had just had its '*Sonic Mars*' design document for a 32X *Sonic* game approved, which would ultimately evolve into the ill-fated Saturn project *Sonic X-treme*. Lastly, over in Japan, a third team was working on a Mega Drive game known internally as *Sonic Stadium*, which at some point was also known as *Sonic Crackers*.

It's fair to say that the *Sonic Crackers* team was not the one expected to deliver the biggest hit. Other than producer Makoto Oshitani, who had served as one of the directors on *Sonic CD*, only a small group of artists had worked on any previous *Sonic CD*, but most of the staff were new to the series. Given the early nature of the work seen here, it's entirely possible that none of the *Sonic CD* artists had even had much involvement at this point. This team of newcomers came up with a bold spin on the existing *Sonic* formula. While the game featured Sonic and Tails in the 2D platform environments to which they had become accustomed, they now each held a ring. These two rings were joined by a string of sparkly stars that acted like an elastic band – by building tension you could achieve high speeds or giant leaps, in a system built for co-op play. The game was shown to the press under strict secrecy, before disappearing from the radar.

A prototype ROM of *Sonic Crackers* was released by the Belgian group Evil Empire in June 1995. The leaked ROM has conflicting dates, with the title screen suggesting April 1994 and the ROM header stating July 1994. At this point, the game was little more than an engine test, featuring two side-scrolling levels. One is an industrial-themed stage with a variety of different colour palettes, with a level design that sees Sonic and Tails working from left to right and back again as they ascend towards the top of the stage. If you reach the destination or three minutes pass, you'll reach a top-down area set in



» [Mega Drive] Many animations are implemented at this stage, albeit often with disjointed arms.



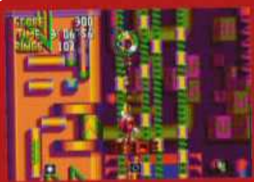
» [Mega Drive] Fan speculation envisaged these overhead stages as hub worlds between side-scrolling stages.

OR YOU COULD PLAY...

KNUCKLES' CHAOTIX

1995, SEGA

■ Yes, it's technically the same game, but the traces of what *Sonic Crackers* was have been almost completely eradicated. What we ended up with was a serviceable platform game, without much in the way of challenge or memorable stage design.



SONIC HEROES

2003, SONIC TEAM

■ In this one, you control a trio instead of a pair and it is 3D instead of 2D. Although they're not linked physically, your characters maintain tight formations and will often pick their partners up and throw one another around a bit.

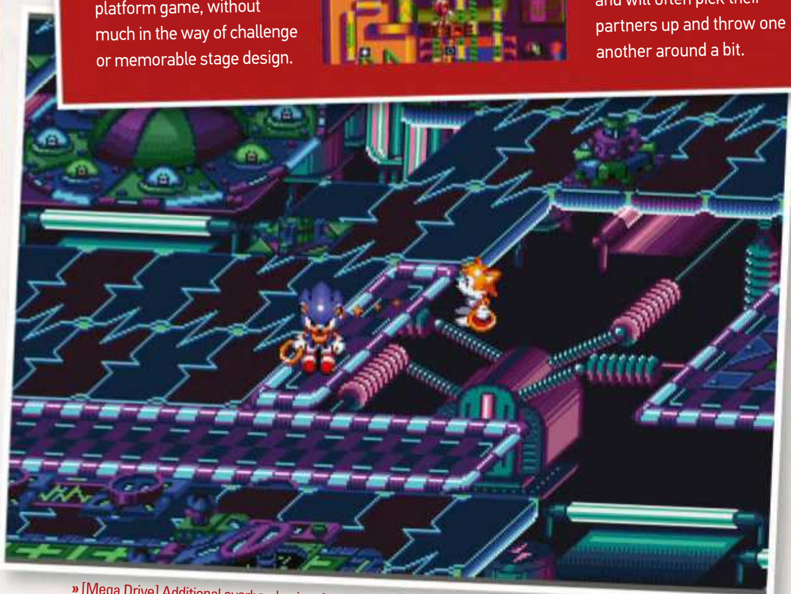


SONIC ADVANCE 3

2004, DIMPS

■ Your tag team partner has a diminished role in this handheld *Sonic* outing, providing only a unique power at the touch of a button. There are five on offer but they're designed to be interchangeable, and are therefore inessential.





» [Mega Drive] Additional overhead animations for Tails found in another ROM suggest these were action stages.

> "It's probably for the best that Sonic Crackers ended up taking the turn it did"

the sky. There's nothing to do here and no collision, but by pausing and pressing A you'll move to the second side-scrolling stage, a brightly coloured funfair-style stage against a night sky background. This stage features incredibly broken collision and a neat exterior loop. Once a minute passes, you'll move to a dark, industrial style overhead stage, the last of the game's unique stages.

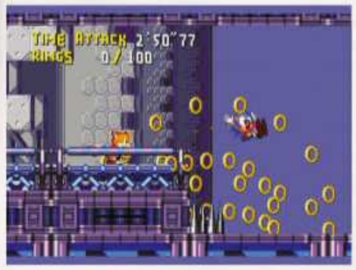
Ultimately, *Sonic Crackers* moved to the 32X, filling the void left by moving *Sonic Mars* to the Saturn. By the time it was back on the radar, the concept had been revamped heavily into a spin-off starring Knuckles with a preliminary title of *Knuckles' Ring Star*. All of the existing art from the Mega Drive version was dropped, the overhead game sections were canned completely, and Sonic and Tails were also given a break. Instead, they were replaced by Knuckles and a ragtag band of companions including Vector, a crocodile left over from the design process of the original *Sonic* game, and Mighty, the armadillo character from the isometric arcade game *SegaSonic The Hedgehog*. By the time the game was finished and released as *Knuckles' Chaotix*, all that was left of *Sonic Crackers* was the elastic Combi-Ring mechanic and some music.

Its authenticity has been disputed, but a number of corroborating sources suggest that the leaked prototype is indeed legitimate. These include the text 'SonicCrackersS32X' found in a *Knuckles' Chaotix* prototype ROM, as well as mentions of *Sonic Stadium* in the design document for *Sonic Mars* and in a November 1995 article on cancelled Sonic games in *Sega Power*. Most significantly, additional overhead sprites for Tails were also found in a *Yu Yu Hakusho* prototype ROM, serving as the only concrete indication of what happened between the leaked prototype and a December 1994 prototype of *Chaotix*. These sprites depict a number of Tails' actions including grabbing, throwing, being dizzy, spin-dashing and even a victory pose.

Ultimately, it's probably for the best that *Sonic Crackers* ended up taking the turn it did. The Mega Drive scarcely needed another *Sonic* platform game in 1995 after the double hit of *Sonic 3* and *Sonic & Knuckles* in 1994, while the 32X desperately needed some star power. Knuckles isn't a match for Sonic in that department, but he was riding a wave of popularity at the time and the experimental game design was certainly far better-suited to a spin-off. There wasn't much worth salvaging in the *Sonic Crackers* prototype, and the development team correctly identified that the music was the material of value. While we'd love to see how far it got before the concept and platform changed, we're not losing any sleep over *Sonic Crackers*. *



» [Mega Drive] Much of the game involves gaining speed by stretching and releasing the link between Sonic and Tails.



» [Mega Drive] The game offers very few hazards and no rings – you can't actually pick up dropped ones.



» [Mega Drive] This colourful stage has a funfair or theme park motif, but it's pretty vaguely defined.

THE HISTORY OF BATTLEZONE

ONE OF THE PROGENITORS OF THE FPS GENRE, BATTLEZONE HAS HAD QUITE THE RIDE OVER THE LAST FOUR DECADES. IAN DRANSFIELD LOOKS BACK AT A SERIES THAT HAS REINVENTED ITSELF REPEATEDLY – WHILE NEVER LOSING SIGHT OF ITS VECTOR

The stark green on black, gorgeously defined lines of its vector graphics and simple, straightforward action sums up Atari's 1980 arcade hit *Battlezone* well enough, however it's that viewing portal that people *really* remember. A periscope on the front of the machine the player had to press their eyes to in order to see what they were up against, both bringing a proto-virtual reality experience to the masses decades ago, while also making *Battlezone* a much more immersive, unique, and memorable experience in the fledgling arcade scene.

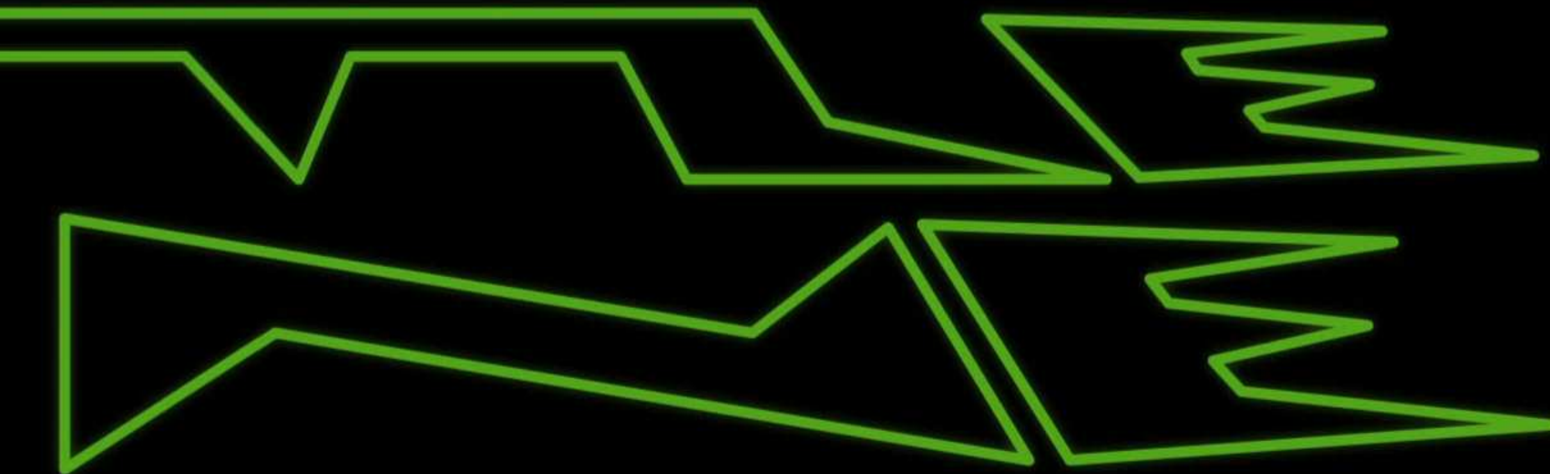


» [Arcade] Vector graphics maintain an air of cool about them that the majority of other graphical styles just can't manage.

"I was against the viewfinder," Ed Rotberg, primary designer on *Battlezone*, tells us. "The game was not really designed around this feature. I'm pretty sure the idea came from Morgan Hoff, and we argued about it constantly… I felt it blocked the view not only of people waiting in line to play, but also blocked the view of passersby who would not [be interested in] a game they could not easily see." Morgan was the project director on *Battlezone*, while this was Ed's second ever game at Atari. The viewfinder stayed.

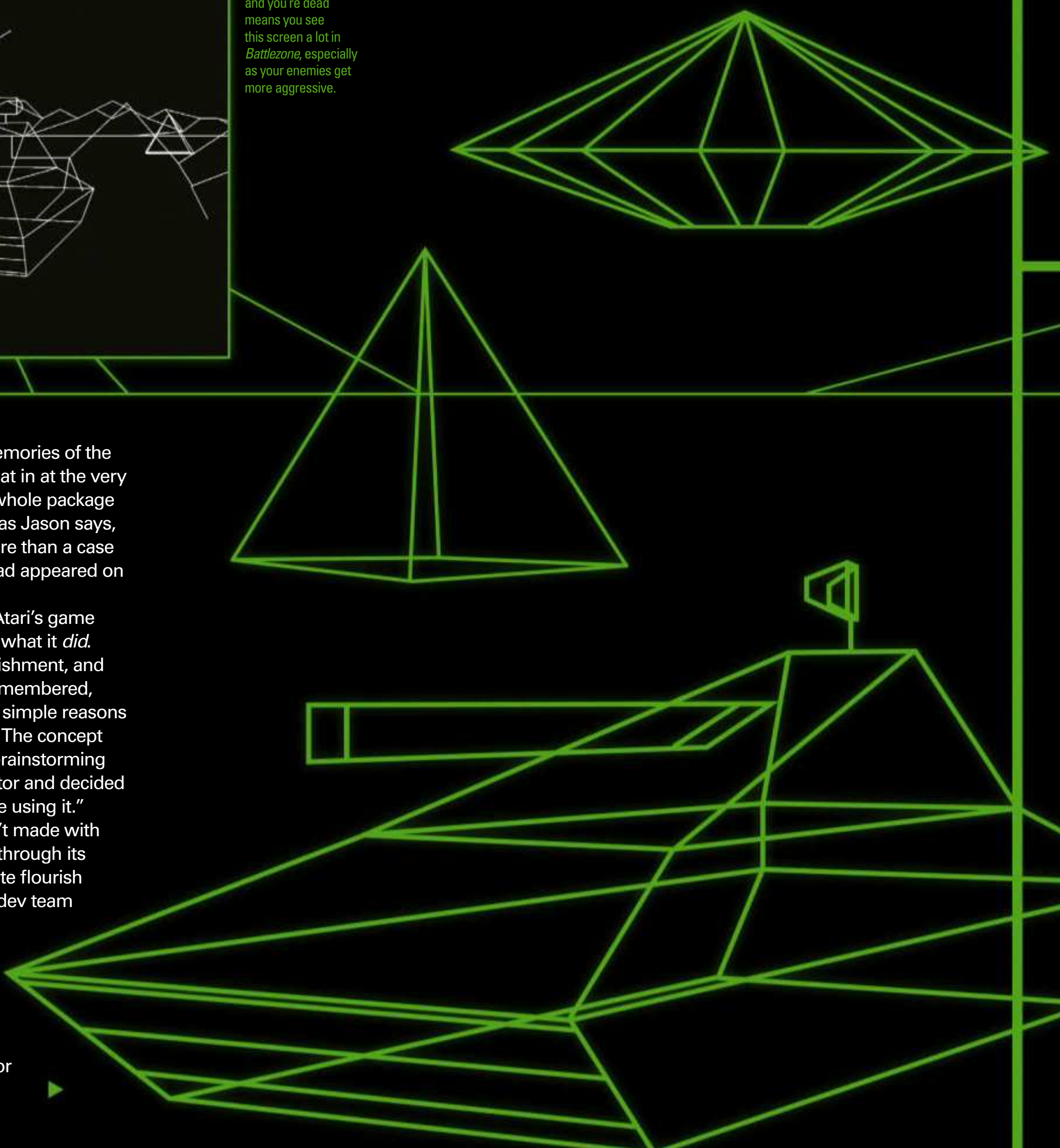
While Ed might have been against it, others bought in to the illusion it created with gusto. Many have brought it up as a seminal moment for the development of their love of gaming, including Rebellion cofounder – and current gatekeeper of the *Battlezone* licence – Jason Kingsley, OBE: "Thinking about the original *Battlezone* takes me back to the arcades I played it in," he says. "The darkness filled with flashes of neon, bleeps and bloops and the smell and smoke of cigarettes – that's what arcades were like back in the Eighties!

"But right at the forefront of my memory," he continues, "is putting my eyes up against the iconic visor of that cabinet, and how that genuinely made me feel I was right there in this black and green wireframe world, sat in the cockpit of my tank. It was a very unique game, and very ahead





» [Arcade] One shot and you're dead means you see this screen a lot in *Battlezone*, especially as your enemies get more aggressive.



of its time, I'd say." It's fair to say memories of the original game are couched somewhat in at the very least 'a bit of nostalgia', mind – the whole package was undoubtedly ahead of its time, as Jason says, but the in-game action was little more than a case of shooting the single enemy that had appeared on the map before they shot you.

Ed is quick to point this out, that Atari's game wasn't a huge step when it came to what it *did*. No, *Battlezone* was a huge accomplishment, and something very genuinely fondly remembered, because of *how it did it*. There were simple reasons behind its creation, as Ed explains, "The concept came out of one of the company's brainstorming sessions. We had the vector generator and decided it was time to do a first person game using it." And it's safe to say *Battlezone* wasn't made with the intention of changing the world through its artistry… and yet, there was a definite flourish going on behind the scenes, with a dev team putting in some real graft to make a game like no other.

"At first, I was trying to get the 3D engine running, so it was a lot of basic coding," Ed continues. "During that time I ended up running a Vector Generator 'disassembler' so I could view the

CONVERSION CAPERS



APPLE II

1983

■ While the home computer version for Apple's machine might have looked just about the part – though its wireframe lines were a mite chunky – the game itself lost a lot of its original pace. As such, this port was more of a slog than expected.

ATARI 2600

1983

■ The 5200 port was cancelled, leaving this version the flagship for Atari's consoles. It was, and is, odd. No wireframe models, a bizarre halfway-up-the-tank viewpoint, no obstacles – it's fun in short bursts, but *BZ* on the 2600 will always be remembered as… *weird.*





C64

1983

■ Ear-shattering sound and scaling issues aside, the C64 version of *Battlezone* is one of the best from the initial early Eighties batch. It runs smoothly and quickly, it keeps everything from the arcade original, and it definitely looks the part. A miniature triumph.

VIC-20

1983

■ Unsurprisingly, the Vic-20 version of *Battlezone* isn't quite up there with the superior C64 one – but it manages a better job of things than most of the other 1983 versions. It maintains the wireframe look and is, relatively, smooth playing – but otherwise unremarkable.





IBM PC

1983-1993

■ Originally a decent booter release in the early Eighties, *Battlezone* on the PC was repackaged as part of an arcade selection for Windows 3.1. The later version is, unsurprisingly smoother and more appealing to the eye, but an odd analogue-ish control system lets it down.

> **"THERE WERE EMPLOYEES WALKING INTO THE LAB TO PLAY THE PROTOTYPE"**
>
> Ed Rotberg

▶ VG commands symbolically and speed up debugging. Once the framework was up, there was interface code for the 'Math Box' to write, and code optimisations. Then it was getting into the game design and testing — a very iterative process."

As things progressed, so did the debugging, and as the debugging and continued coding progressed, so did internal interest in *Battlezone*. "There were a lot of employees walking into the lab to play the prototype," Ed says. "And therefore a lot of having to kick them off the game so I could work on it. It was pretty much like bringing up any arcade game on new hardware. We'd had the VG for a while, but the Math Box integration was new, as well as a new PC board with new audio including using the Pokey chip."

From all of this – all this coding and debugging, learning new technologies and finding out ways



» [Xbox 360] The Xbox Live Arcade rerelease in 2008 was a good idea, but fell almost entirely flat.

to implement them with an 8-bit microprocessor – came another world; a phase shift for arcade gaming that took the straightforward, relatable fun we already knew and introduced an element of immersion never before seen. It had a hand in pumping out a new aesthetic, too, as Jason explains: "Not only did *Battlezone* shape gaming but it's shaped our appreciation of what the cyberworld is like!

"Think about how it influenced *Tron* and how that in turn influenced things like *Blade Runner*, that sense of neon and glow and virtual realities. I think it's inextricably linked to all that. The idea of light against dark is fundamentally important. I don't know if it was a design choice at the time or if it was driven by necessity of the hardware in that a screen defaults to being dark. But I think the aesthetic has kind of echoed through that culture."

Ed's personal memory of choice for *Battlezone*, though, comes from a much simpler angle – things going boom. "My favourite element in the game was actually the explosion when you blew up a tank," he says. "While *Battlezone* did real 3D maths, the code was optimised to only do rotations in 2D. Trying to get the explosion pieces to look like they were tumbling with rotations in arbitrary axis was a trick – they *really* only rotated in 2D," but with some vertical axis jiggery pokery, the game was able to fool us all into thinking those evil enemy tanks were actually exploding all over the place. Who knew?

Battlezone was a huge success in the world of the arcade, and by the dawn of the home computer revolution we started to see ports popping up

ZX SPECTRUM

1984

■ The Speccy version, published by Quicksilva instead of Atarisoft, is *okay* – though it does have some gorgeous tank animations. But it was put to shame at the time by clones like *3D Tank Duel*, which ended up doing *Battlezone* better than *Battlezone* on the ZX Spectrum.





ATARI ST

1986

■ The 16-bit home computer version of *Battlezone* takes cues from both the 8-bit and 2600 versions, marrying wireframe tanks and obstacles with 'full' scenery surrounding it all. It's a solid version of the game with a unique look, and the best of Atari's home versions.

ATARI 8-BIT

1987

■ While the 2600 did away with wireframe, the 8-bit family hung on tight, with the result being a version of *Battlezone* for an Atari machine that actually looks like the Atari game it was based on. Magical. It runs fairly slow, but the skeleton of the arcade original is there.





GAME BOY

1996

■ A double pack of *Super Breakout* and *Battlezone* arrived in the Game Boy's later years, and nobody is sure why. The vectors survive, barely, with a constant flickering effect necessary for the game to draw each half of the screen independently. It is a poor version.

LYNX

1995

■ *Battlezone 2000* was a straightforward port. Enter a code, though, and you got the *true Battlezone 2000*. Mixing RTS designs with inventory management and a new look, it was ahead of its time and was nixed by the publishers, who felt it was too complex.





» [N64] While toned down for a console audience, the N64's *Battlezone* still included many elements of strategy. And difficulty.



» [Atari Lynx] It's utterly bizarre that such a fully-featured, good looking game as *Battlezone 2000* was actively hidden from the public.

on every format you could think of. Oddly, Atari's own version for the 2600 was a bit of a mess – and it made the cardinal sin of ditching the vector graphics (admittedly for tech reasons). Other formats did see more faithful recreations of the source material, though, and over the decade following 1983 *Battlezone* was released in no less than eight different varietals.

When you weren't able to pick up an official version of *Battlezone* – like, say, if you had an Amiga – there were more than enough alternatives on offer. With the original being such a seminal moment in gaming history, the result was inevitable copycat titles for two simple reasons: one, *Battlezone* was successful. Two, it inspired young developers to make something of their own. This resulted in a smorgasbord of vector graphic tank games, of first-person vehicular combat titles, of arena-based blasters trying not to use the words 'battle' or 'zone' too liberally in their names.

Thanks to the fact *Battlezone* was an innovater – and just because it was a bit long in the tooth by the late Eighties/early Nineties – a lot of these clones managed to outdo the original, or at the very least beat the genuine version of the game to release.

The home conversions actually continued to arrive for well over a decade, with the Game Boy, for example, not getting its first taste of *Battlezone* until a dual-game cartridge release alongside *Super Breakout* in 1996. But it was the year before that where we saw the first huge evolution of the now very much overdone formula for the game – and it was once again an Atari device pushing the innovation, with the Lynx hosting the most unique game in the series: *Battlezone 2000*.

Developed by Handmade Software, the game you slid into your console and played would surprise few – an updated version of the original arcade game, featuring more types of tanks and weaponry, as well as specific goals in each level and the ability to customise your tank's loadout. It was *fine*. Good, even. But if it were that alone, the port would have been consigned to history. As it turns out – and as anyone who's entered a particular cheat code knows – that wasn't the case.

It turns out *Battlezone 2000* was originally a very different game indeed; a title of intense complexity and inventiveness, the sort of thing we can safely refer to as 'ahead of its time' these days without looking foolish. The 'true' ▶



» Ed Rotberg did tremendous work on *Battlezone*, just don't mention The Bradley Trainer to him…

UPDATING THE CLASSICS

How Big Boat Interactive and Rebellion brought the series up to scratch



While the originals haven't aged badly, 1998's *Battlezone* and its sequel received an HD lick of paint from new owner Rebellion in 2016 and 2018, respectively.

The remasters were developed and retooled by Big Boat Interactive, which includes some of the original releases' staff, including original producer Mike Arkin.

The remasters don't touch the overall design too much, instead focusing on bringing features like online multiplayer and modding to the fore.

The *Redux* release caused a bit of a stir online when the original expansion packs arrived separately, later, with a price tag attached.

More recently, Rebellion has published *Battlezone: Combat Commander* – much like its 'redux' version of *Battlezone 2* expect a faithful update.



» Mike Arkin was responsible for reinventing *Battlezone* in the Nineties.

▶ *Battlezone 2000* featured 2,000 levels, multiple different environments, more enemies than just tanks, a focus on systems management, and solid – not wireframe – 3D graphics alongside 2D sprites. It was completely differently to the original *Battlezone*. And that's why it was hidden.

It has to go down as one of the biggest Easter eggs in gaming history – the 'true' game hidden behind the 'safe' port, forced into hiding thanks to a publisher fearing players would find what the developers had made far too complex.

They weren't wrong, mind, as *Battlezone 2000* is *intense*, difficult to get to grips with and the kind of thing only a sadist would put up with getting their head around.

But, while it was certainly consigned to the forgotten pile for a while after its release, the ideas – the thought of doing something a bit different with the licence – stuck around.

18 years after *Battlezone* shook up the world of arcade gaming and helped establish a fledgling first-person shooter genre, it came back. But this wasn't another stab at an arcade great, nor another step further into the world of virtual reality. Instead, *Battlezone 98*, as it's colloquially known, went in an entirely different direction to what had come before – and it was all the better for it.

Activision had tasked one of its internal development teams with creating a brand-new real-time strategy game in 3D – at the time the *Battlezone* name wasn't a consideration, as Activision didn't even own the rights. "All of the tech development was really focused on the 3D RTS idea and coming up with the right ideas to make that work," explains Mike Arkin, producer on *Battlezone 98*. "At Activision we'd have a very long preproduction where we were trying out ideas and developing the user interface, which was important for the game. During that preproduction period it all looked very different; it was more like Eighties fighter jets on the moon! Imagine F-86 Sabres painted chrome with stars and bars on the wings, hovering around on the moon…"

Towards the end of this extended preproduction period, though, Activision did acquire the licensing rights to *Battlezone* and looked for a project to attach the name to. Mike and his team's game fit the bill quite nicely. "We started to recalibrate around a different look and feel with more emphasis on tanks to fit the *Battlezone* name more," he says. "We redesigned the tanks and we modified the radar scope to look more like the arcade radar, but they are *very* different games."

The simple fact was, while *Battlezone* was a beloved arcade classic and the sort of game that *had* pushed people to become game developers,



» [PSP] The handheld version of *Battlezone* had potential, but small matches versus AI stop being fun quite quickly.

> **"IT WAS ONE OF MY FAVOURITE ARCADE GAMES"**
>
> Mike Arkin

Activision didn't want a retread of that ground. Even if *Battlezone 98* was initially conceived as its own thing with the name slapped on towards the end of its gestation period, it was still part of a treasured lineage. "It was one of my favourite arcade games and I have great memories of playing it," Mike admits. "But that's really it. The honest truth is the original arcade game wasn't a huge factor when we were working on *Battlezone 98*."

What set *Battlezone 98* aside from genre stablemates was how it mixed 3D RTS elements with first-person direct control. In that respect it certainly kept the spirit of *Battlezone* alive, allowing players to control… well, tanks on a battlefield. But the complexity – unit and building management, resource gathering and defending your territory – made it something far more memorable than might have been expected for a game that had its name foisted upon it later into its development.

"I think it broadened the gameplay, changing the game from a very condensed chunk of virtual reality to a strategy game," Jason says of his love for *Battlezone 98*. "Offering a more expansive scope with more components and longevity. Basically, in the original *Battlezone* if you're shot you die, you've got a certain amount of lives, and if those lives run out it's game over and you start again. To expand on that while still retaining a link to the original game, all while creating this kind of unique hybrid of shooter and strategy genres is no mean feat. It's no surprise the game still has such passionate fans, some 20 years on."



» [PC] The scope for *Battlezone* increased tremendously with the 1998 release, thanks in no small part to the addition of giant stompy robots.

Mike makes no bones about his pride to have been involved in the creation of a true original: "What a great experience it was, and what a great time it was for PC gaming," he says. "Activision had just shipped *MechWarrior 2* and *Interstate '76* was in development, just around the corner from the *Battlezone* team. This was the beginning of the age of modern PC games with textured 3D, and *Battlezone* was a totally new invention. We were creating a kind of game that really didn't exist before and the team knew it."

Battlezone 98 was followed by a couple of add-on packs, with features from a cancelled project – known as *Imperial Insurrection* – inserted in bits and pieces into both *Battle Grounds* and the *Red Odyssey*, the two expansions also arriving in 1998. A full sequel arrived in 1999, with *Battlezone II: Combat Commander*, which – among other things – introduced an entire new faction in the shape of the alien Scions and pushed the focus of the action far more in the direction of the RTS part of its genre blend. You can still get involved in passionate online arguments these days about which of the two FPS/RTS games is the best, such is the depth of division that has risen over the years.

In what some would call 'an odd move', a spin-off of Activision's *Battlezone* games arrived on the N64 in 2000. *Battlezone: Rise Of The Black Dogs* was a decent, inevitably somewhat dumbed down, version of the PC games, offering players the chance to take part in straightforward arcade combat of the more complex RTS style of play. While control issues reared their head – complexity and pads tend not to mix too well – it was a functional and *sometimes* enjoyable entry ▶

ARMY MOVES

How the US military made Ed Rotberg miserable

***Battlezone* was infamously converted into a military training version of the game, known as the Bradley Trainer and coded by Rotberg himself – we'll touch on that more in a second.** It removed the ability to drive the tank, and added in more technical elements to firing your multiple weapons, using targeting systems and so on.

Approached by a group of retired generals, Atari was asked to retool *Battlezone* into something that could be used to train Bradley tank operators, feeling it would make training more effective. Ed agreed to create the prototype, being the only one intimately familiar with *BZ*'s code, on the condition he would be exempted from any future military contracts Atari might pursue.

"I was totally against the idea," he says. "Any of us could have gone to work for the military if we had desired. This was a project that could only lead to Atari becoming a military contractor… I was loath to have that brought into Atari. Also, I'm pretty much a pacifist, and I had trouble dealing with creating something used to train people to kill more effectively."

Unsurprisingly, Ed does not look back on the experience positively: "I lost three months of my life, working 16-18 hour days and only seeing my wife when I went to sleep each night and woke up each day. I don't have fond memories of that time."



BATTLECLONES

The games that owed a lot of tanks to Atari's arcade blaster

STELLAR 7

VARIOUS

■ While quite obviously borrowing heavily from *Battlezone*, *Stellar 7* managed to do things so well – varied, exciting action with power-ups like a cloaking device and even some level of story behind it – that the game ended up beloved in its own right. Remakes and sequels followed, and the series is still fondly remembered.





ROBOT TANK

ATARI 2600

■ This entry also counts *Battlezone 2000* for Atari's console and *Battle Tank* for the 8-bit family, with each being – to varying degrees – a clone or take on *Battlezone*. *Robot Tank* added weather conditions, *Battlezone 2000* (released well before the completely different Lynx version) was a strategy title, and *Battle Tank* was… not very good.

ENCOUNTER!

VARIOUS

■ Notable for being designed by *Mercenary*'s Paul Woakes, *Encounter!* took the first-person combat of *Battlezone*, switched out tanks for alien… well, balls, and replaced vector graphics with scaling sprites. It was heralded in the day as a technical marvel, with a superb pace to play and exciting action throughout.





BZ/BZFLAG

PC

■ Originally created in the early Nineties as a passion project – and one inspired by *Battlezone* – what was originally known as *BZ* has been modified and updated frequently for over 20 years. Nowadays it's a niche, beloved online capture the flag shooter as famous for its number of volunteer developers as it is the blasty action.

TOKYO WARS

ARCADE

■ Namco turned back time to the dawn of arcade for its inspiration with *Tokyo Wars*, a straightforward – and genuinely satisfying – game of tank combat seeing one team facing off against another. Of course, there was a gimmick – players would sit in a chair that, on firing the main cannon, blasted back with the 'force' of the shot.





HOSTILE WATERS: ANTAEUS RISING

PC

■ While 1998's *Battlezone* wasn't the first to bring RTS and shooter systems together, it certainly reignited a passion for the subgenre. So it was no surprise to see the likes of the brilliant *Hostile Waters*. This gem has seen a resurgence in popularity, possibly thanks to *BZ*'s HD releases.

▶ to the series. Admittedly its limited multiplayer hamstrung the game from the get-go, but it did win a fair few fans at the turn of the millennium.

Following the critical success of the two PC *Battlezone* titles and the decent console spin-off, it made sense to see plenty more games with the moniker enter the fray, bringing with them as much invention and pure creativity as we'd seen from 1998 onwards. While it made sense, it didn't actually *happen*.

Instead, the *Battlezone* licence was batted around a few placed, landing in the lap of the likes of Paradigm Entertainment, which produced a mediocre four-player arena tank battle game for the PSP, Stainless Games, which remade the original arcade game for Xbox 360 and impressed few, and GlobeX, which produced nothing – not even a title – before its game was cancelled. It seemed the *Battlezone* name was being kept on life support, a few sputterings and murmurs every now and then reminding people it was still drawing breath, but with no real fire behind its eyes.

Enter Rebellion, stage left, in 2013: "The opportunity arose," Jason explains. "Atari – or what Atari have now become – were auctioning off some of their IP, including *Battlezone*. I was immediately interested, as *Battlezone* was a huge influence for myself and my brother Chris when we were growing up. So we travelled to New York and went to the top floor of a massively tall building, and we acquired the IP." With plans in the very early stages at the studio to create a VR game, the acquisition of a game that brought one of the first VR-like experiences to the masses focused the team in one direction. "*Battlezone* seemed to make perfect sense for that," Jason says.

Released on PS4 in 2016 and PC the year after, *Battlezone*'s first true foray into VR was well-

» [PC] The Nineties reboots have a definite feel about it that many games of the era had, evoking the likes of *G-Police* and *Hardwar*.



> "BATTLEZONE WAS A HUGE INFLUENCE FOR MYSELF AND MY BROTHER CHRIS"
>
> Jason Kingsley

received on the new generation of tech. While there were nods to features from the Nineties Activision versions, this was very much a reboot of the almost 40-year-old game – so much so a 'classic mode' was later patched in to give the game its vector graphic look. It wasn't just players impressed with what Rebellion made from the license, either, with Ed himself happy with what was put together: "I am really impressed with *Battlezone VR*. I appreciate the creativity that went into it to make it not only much deeper than the original, but to still give a nod to the basic play from the original".

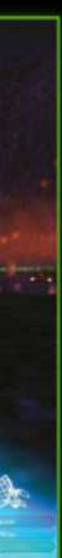


» [PC] *Battlezone*'s recent foray into VR harked back to the arcade original in more ways than one.

Around the same time, Rebellion made the decision to remaster *Battlezone 98* for a modern audience – though the game had received support, even updates, for many years following its release, there was still seen to be a gap in the market for bringing an underappreciated gem in front of more eyes. Fortunately for the publisher, Mike and his new studio Big Boat Interactive was ready and available to work – once again – on the RTS/FPS hybrid.

"I got a note from Rebellion asking if we could meet at GDC to talk about *Battlezone*," Mike explained, "I still wore my *Battlezone* T-shirt now and then, but it wasn't a game I really put much thought into over the years, even though it was one of the best games I'd ever worked on. Well, they wanted to get the game onto Steam and since it was a little long in the tooth, I suggested we go in and redo all the art and do it right." While Mike admitted he didn't think the Kinglsey brothers would go for it, Rebellion's owners agreed and put the Big Boat team to work on a full HD remaster.

Battlezone 98 Redux released in 2016 – before the VR version – to very positive user reviews, with players new and old praising the game's ingenuity in combining genres and action as it did. Of course, the core mechanics remained pretty much untouched – you don't mess with greatness, after all – but the wheels (or hover… tank… tracks) were set in motion for the second inevitable remaster. The second of the reduxes arrived March 2018 to a similarly rapturous applause from players – and, of course, it reignited more online spats about which of the two RTS games is the best, but then that's just the internet for you.





» [PC] The PC reboot saw the series take off in an unexpected direction – like to the moons of Jupiter.

Where *Battlezone* goes from here, we're not entirely sure – but it's almost a dead cert we won't be left in limbo for another 18 years of ports and revisions before seeing another game in the series. The recent successes of Rebellion's remasters and its brand-new game combined with the license now being owned by a company that genuinely loves it means the signs are very positive indeed.

"There are many foundational games which are overlooked, games that are fundamentally important to how we *play* games," Jason muses. "*Battlezone* was one of those games – and the vector games in general – that I think were a kind of side-shoot of the general evolution of the medium. The idea of drawing vector lines was quite odd, and gaming went in a bit of a different direction, but as a result they created something very unique.

"The games industry as it stands now is this massive part of the creative industries, really, really important and arguably bigger than TV or film. There's been a real generational shift towards games. I think, one day, we'll look back at the early games like *Battlezone*, which in many ways was the first ever first-person shooter and the precursor to virtual reality, and realise just how they influential they were. I don't think we're quite there yet." ✱



» Jason Kingsley's fond memories of *Battlezone* led to buying the IP.



BIO

Mickey Mouse's 65th birthday occurred during 1993, and Disney was keen to celebrate the occasion in every way possible – including the release of a videogame. However, Traveller's Tales would only have had six months to develop the game, so this idea was shelved in favour of a game celebrating the mascot's entire cartoon history. The result was *Mickey Mania,* a game in which Mickey Mouse must rescue a variety of characters from old cartoons including himself and his faithful dog Pluto. The game also arrived on the SNES, Mega-CD and PlayStation, and started Traveller's Tales' strong reputation for developing licensed platform games.

CLASSIC MOMENTS

Mickey Mania

» **PLATFORM:** MEGA DRIVE » **RELEASED:** 1994 » **DEVELOPER:** TRAVELLER'S TALES

By the mid-Nineties, platform games needed to do a lot to stand out from the crowd, giving rise to something of a technical arms race from developers in the genre. Just look at the games competing for your Christmas spend in 1994 – *Donkey Kong Country* dazzled with its prerendered 3D graphics, while *Sonic & Knuckles* rewarded series fans with a unique cartridge lock-on function. *Mickey Mania* was no different in this regard, packing in unique gameplay sequences enabled by programming wizardry, leading to its most memorable scene.

After making his way into the woods, Mickey suddenly finds himself being pursued by a furious moose in a spectacular into-the-screen chase. Your goal is to collect apples to keep Mickey's stamina up, while avoiding rocks and leaping over rivers – nothing too complex, but what sells it is how well the 16-bit platform pulls this off. The rolling terrain is varied and moves smoothly, with none of the jerkiness associated with pseudo-scaling techniques in the early years of the Mega Drive. It's a joy to behold and a lot of fun to play, too. *



MORE CLASSIC MICKEY MANIA MOMENTS

In Glorious Technicolor



Mickey's first animated short was a black-and-white production known as *Steamboat Willie*, and that's the first level of *Mickey Mania*. However, Traveller's Tales decided to modernise it a bit by gradually colourising the level, piece by piece, as you made progress. By the end, it was fully colourised.

Gurney Journey



The Mad Doctor's stage requires Mickey to perform death-defying leaps between trolleys at high speed while avoiding spikes, circular saws and bottomless pits. This sequence lasts under 30 seconds, but is rock hard – in fact, it's so tough that the developers made it impossible to lose your last life here.

Tower Torment



Borrowing just a little from *Nebulus*, this tower section in The Mad Doctor showed off some lovely technical trickery on the Mega Drive and made for a memorable bit of gameplay, as you leapt between collapsing platforms while avoiding barrels. This section returns later on too, with added pressure…

Fire Escape

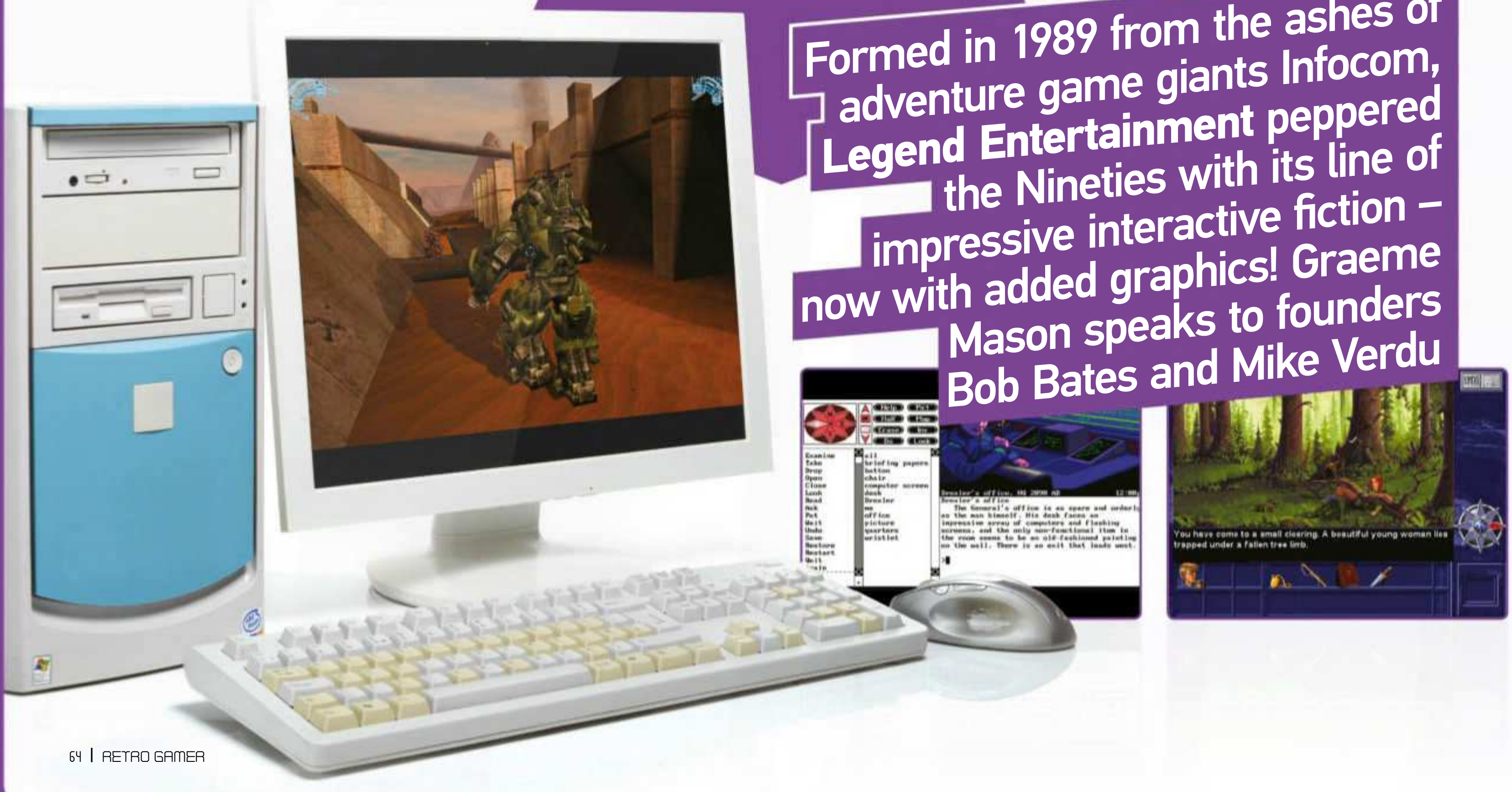


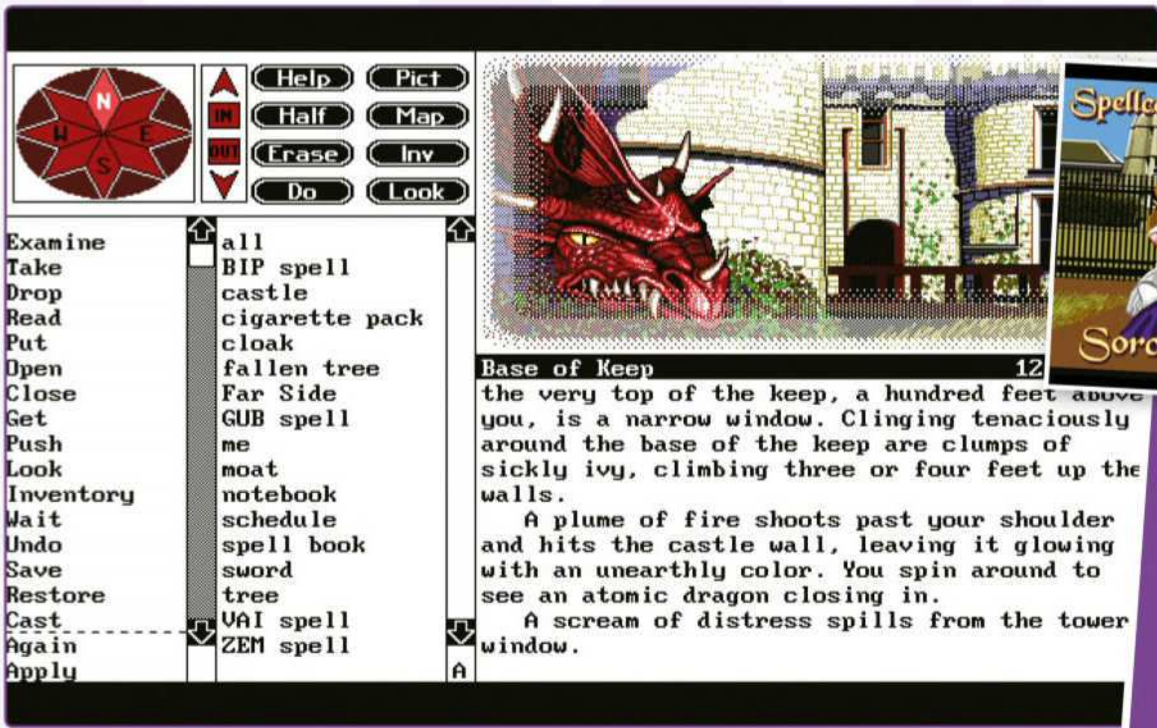
We love a good bit of vertical platforming here at **Retro Gamer**, and this section of *Mickey Mania* fits the bill nicely. The tower's guards are a menace, and the pressure is piled on even thicker as a beautifully animated inferno laps at Mickey's heels. It's a great late-game sequence that tests all of the skills you've developed.



LEGEND ENTERTAINMENT

Formed in 1989 from the ashes of adventure game giants Infocom, Legend Entertainment peppered the Nineties with its line of impressive interactive fiction – now with added graphics! Graeme Mason speaks to founders Bob Bates and Mike Verdu





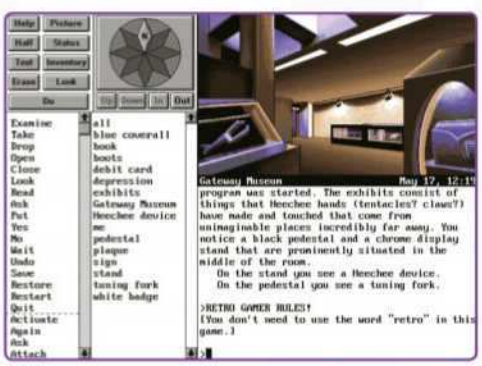
» [PC] Facing off against a dastardly dragon in order to save the damsel in distress in *Spellcasting 101*.



» [PC] Legend cut its teeth with the crass, but decently designed, *Spellcasting 101: Sorcerers Get All The Girls*.

Bob Bates, joint-founder of Legend Entertainment, grew up with games. "My parents had eight children and we were always playing something, card games, board games, puzzles," he says. "But it was a time before personal computers had been invented, so text adventures had no influence on me growing up." Bob's route to discovering the genre began, appropriately, via the written word. "When I was 30, I started working on a novel, and two years later it still wasn't done. My father was an early adopter of computers, and gave me a TRS-80 to use as a word processor to help with the writing." Sitting on the TRS-80 was a game by the name of *Zork*. "I loved it, and thought that with my background as a writer and puzzler, I might make a good games designer."

Bob decided to create his own company, Challenge Inc, in order to publish games, and compete with *Zork*'s creators, Infocom. "But I soon got into discussions with them to see if I could license their development engine. One thing led to another and eventually I became Infocom's first outside developer." Like Bob, Mike Verdu dreamed of becoming a writer before discovering the incredible creative power of computers. "One of my friends was lucky enough to score a TRS-80," he remembers, "and I immediately fell in love. Computer games were clearly the perfect fusion of creativity and technology, and my aspiration shifted almost immediately from writing to making games." Like many keen early adopters, Mike began self-teaching himself coding, and used various summer jobs to fund the purchase of an Atari 800 and then an IBM PC. "I created a lot of early games, and switched my academic focus to anything to do with computers." Having already started his own business in 1985 that specialised in helping other companies switch to the fast-incoming and flexible PC, Mike one day received a fateful call. "I needed to hire programmers for Challenge," explains Bob. "I couldn't actually code my games. Mike was running his company, Paragon, and I contracted him and two of his engineers, who did the bulk of coding for my two Infocom games." Having never lost his love of videogames, Mike Verdu jumped at the chance to work in the industry as Mark Poesch and Duane Beck were co-opted into Challenge to develop its first two games. *Sherlock: The Riddle Of The Crown Jewels* and *Arthur: The Quest For Excalibur* were released by Infocom in 1988 and 1989 respectively, both part of an overarching series known as *Immortal Legends*. Unfortunately, events at their publisher overtook Bob's plans for the historical series.



» [PC] The familiar Legend adventure engine was tweaked with each release, including *Gateway*.

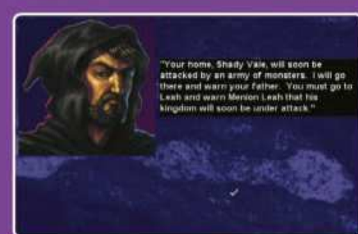
After its early successes, Infocom had experienced a turbulent period, including an acquisition by Activision in 1986. As one of the most popular and innovative videogames companies of the early Eighties, it had made millions of dollars with the *Zork* franchise in particular. But the market was changing and competition from rivals such as Sierra and LucasArts was fierce."Infocom shut down its Cambridge office in the May of 1989 and by the end of that year, Legend was up and running," remembers Bob. Initially, the new company was to be known as GameWorks, and was even briefly incorporated under that name, until upon attempting to get a trademark, Bob discovered the ambiguous moniker was already taken. "A company called Borland had a little-known ▶

INSTANT EXPERT

■ Initially, Mike Verdu handled business and finance with Bob Bates taking care of development and production. Their roles blurred significantly as time progressed.

■ **Steve Meretzky wrote four games for Legend: *Spellcasting 101*, *Spellcasting 201*, *Spellcasting 301*, and RPG-adventure mash-up *The Superhero League Of Hoboken*.**

■ Many of Legend's games were based on popular sci-fi and fantasy books.



■ **Shannara was not based on any particular novel by Terry Brooks but instead was in fact a brand-new tale. It features combat and other RPG elements.**

■ With the advent of CD-ROM, some of Legend's earlier games such as *Gateway II* and *Eric The Unready* were rescanned and rebuilt for a CD release.

■ **Sci-fi adventure *Mission Critical* featured actors Michael Dorn and Patricia Charbonneau.**

■ Legend developed *Star Control 3* after its original developers backed out.

■ **Despite its text adventure development focus, multiplayer *Doom* and *Duke Nukem 3D* were staples around the Legend offices.**

■ According to Mark Poesch, the constant evolution of the Unreal engine strangled the team's productivity on *Unreal II*. *Unreal Championship* got the nod for release first as a result of that.

■ **As Legend was closed by Infogrames, the team was working on its next game called *Project X*. Development never got much beyond proof-of-concept and early game design.**



TIMELINE

1989
■ Legend Entertainment Inc is formed by Bob Bates and Mike Verdu.

1990
■ **The company releases its first game, *Spellcasting 101: Sorcerers Get All The Girls*, by Steve Meretzky. Bob Bates' *Timequest* follows a year later and Mike Verdu joins full-time from ASC.**

1993
■ *Companions of Xanth* is released and shows off a new graphical engine, beginning a shift from traditional text adventure to point-and-click games. *Eric The Unready* and *Gateway II* follow in a busy year.

1994
■ **Steve Meretzky retargets his humour with *The Superhero League Of Hoboken*. Mark Poesch joins full-time as director of R&D and Glen Dahlgren's first solo project, *Death Gate*, is released, based on a series of books by Margaret Weis and Tracy Hickman.**

1995
■ *Shannara*, based on the books by Terry Brooks, is the big release of the year, while sci-fi adventure *Mission Critical* is notable for a small role for *Star Trek The Next Generation* actor, Michael Dorn. Juggernaut book publisher Random House invests in Legend.

1996
■ **Legend emphasises its developer-for-hire credentials with *Star Control 3*, hired by publisher Accolade after previous developer Toys For Bob stepped aside. It marks a shift away from developing and publishing to just the former.**

1998
■ Random House withdraws its support for Legend as it steps away from the world of interactive fiction.

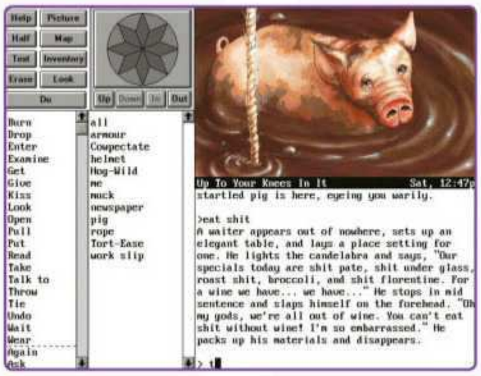
1999
■ **Legend is acquired by GT Interactive, which is subsequently acquired by Infogrames. *The Wheel Of Time*, while based on a book series once more, is a first-person action game, a long way from the adventures it became renowned for.**

2001
■ A turbulent year as Mike Verdu leaves the company in April and *Unreal II* struggles along in development.

2003
■ **After an long period of development, the underwhelming *Unreal II: The Awakening* is published by GT Interactive. Then in late 2003, Legend finally ends as Atari calls time.**

▶ product with the same name. They wouldn't give it up, so we needed a new one. We liked Legend, because we wanted to focus on storytelling, and once my wife had designed our shield logo, we never looked back. It was a better name anyway."

Legend began with Bob as its president and Mike Verdu as chairman; its financial backing would come primarily from an unlikely source, defence contractor American Systems Corporation. "ASC had acquired my little software company in 1988," explains Mike, "and provided most of the startup funding for Legend. Why did they do this? With the Cold War winding down, the writing was on the wall for the US defence budget, which made companies like ASC very interested in opportunities for diversification." Mike and Bob successfully persuaded the contractor that funding a videogame company would be an excellent expansion strategy, and Legend's offices were situated within a building owned by the corporation. Joining Legend was Mark Poesch as a part-time programmer. "When Legend began the web was not a thing, and the games industry not the rockstar-minted industry it has become," he remembers. "I was sceptical of the opportunity as a full-time occupation, so in the early days I remained full-time at ASC and contracted to Legend." Having already worked on the aforementioned Infocom games, Mark was ideally placed to help Legend establish its foothold in the market.



» [PC] One of Legend's strengths was providing hilarious responses to random inputs from the player.

"THERE WAS STILL A MARKET FOR ADVENTURE GAMES"

Bob Bates

Despite the demise of Infocom, Bob and Mike firmly believed in the genre that had made it famous. "Our belief was that there was still a market for adventure games," Bob says, "and we wanted to make parser-driven games because we believed – and still believe – that they offer a type of gameplay that is unique to the industry. Players can talk to the game in ways that aren't possible in other genres, and this often results in a close connection with the author." Nevertheless, Legend had to look forward as well, and designed a new mouse-driven interface, added graphics, and hoped it could compete with the likes of Sierra and LucasArts. "The business strategy at Legend was clear," remembers Mike. "We were going to make high-quality text adventures for the niche audience that had been abandoned by Infocom. We'd increase the accessibility of the games with great art and a menu-input system in the hope of drawing in a

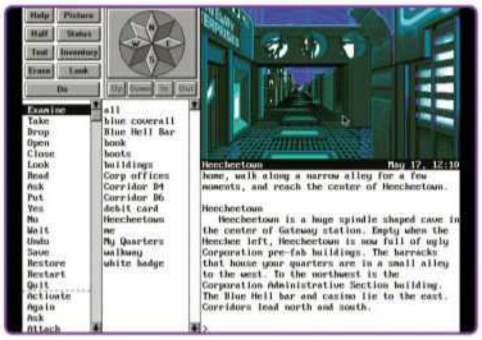
DEFINING GAMES



SPELLCASTING 101: SORCERERS GET ALL THE GIRLS

1990

■ In a premise that may appear somewhat familiar to fans of Harry Potter, a young wizard by the name of Ernie Eaglebeak must attend Sorcerer University, studying magic and indulging in other student activities. However when the university is attacked, Ernie must battle against a mysterious enemy. Sporting smart EGA graphics, a helpful command menu and full sound, *Spellcasting 101* infamously offers two modes, nice and naughty, the latter of which contains all manner of mischievous hijinks.



FREDERIK POHL'S GATEWAY

1992

■ The first of Legend's book-based games, *Gateway* was written by Glen Dahlgren and Mike Verdu, with its interface a step between a text parser and the point-and-click games that would soon take up the adventure mantle. After its initial setup, the game veers away from its source material as the player explores the universe with the aid of an unpredictable ancient technology. With its impressive intro screens, 256-colour VGA display and hybrid game engine, *Gateway* marks a significant point in the development of not just *Legend*, but adventure games in general.

HOW LEGEND GOT UNREAL

Glen Dahlgren on how he sourced Epic's engine

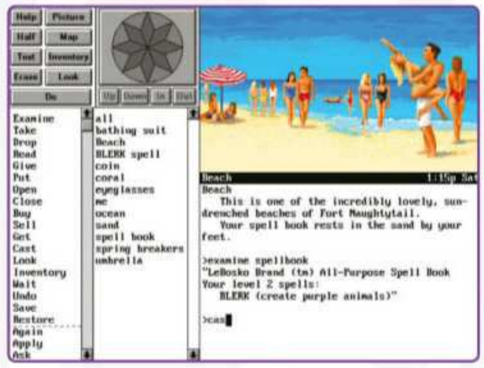
When Legend secured the licence to publish a game based on Robert Jordan's first *Wheel Of Time* book, it set into motion a series of events that led to a significant change of direction for the developer. Designer and coder Glen Dahlgren was responsible for the project, and set about creating a blueprint for an adventure game that fit with Legend's resume. Then the response from Jordan arrived. Glen remembers, "It was like a bolt from the blue. He tried to find nice things to say about the concept, but it boiled down to this: he didn't like adventure games." Faced with losing the licence, a pared-down, semi-sequel approach to the story was suggested, which found favour with the author. Unfortunately Legend's investor, RandomSoft, didn't much like the new approach and withdrew its support, leaving Glen to continue and try and find a useable game engine while Bob Bates secured funding. "I looked at Build and *Quake*, and then I read a small article about this new game in development called *Unreal*. It looked good, so I gave Mark Rein a call and discussed the project. He didn't blow me off, but he was understandably reserved. Given that words were worth only so much, I upped the ante and sent him the concept shots. He immediately emailed back a response that said approximately, 'Holy shit! We've got to make this game with our engine!' along with an invitation to meet with Tim Sweeney to see the engine in its current form."

larger audience over time." An important development was the securing of Steve Meretzky as an independent contractor. "Steve is one of the funniest writers of our generation," says Bob, "regardless of what medium he worked in. We were looking for fun romps through a comical fantasy world, I knew him from my work at Infocom, and his Spellcasting games were exactly what we were hoping for."

Steve and Bob began work on Legend's first games, *Spellcasting 101* and *Timequest* respectively. While both firm adventure games, their themes and tone could not have been more diverse. "In an adventure game, 90 per cent of what the player does is wrong," explains Bob. "So you as a designer have to entertain the player while they are struggling to solve the puzzles." In addition, there was every adventurer's favourite pastime – testing the game's reaction to, err, *alternative* phrases. "Yes, lots of players like to challenge authors with off-the-wall responses," laughs Bob. "And I always enjoy rising to that challenge and writing funny responses to the improbable inputs." In Bob's sci-fi epic, *Timequest*, the player was tasked with chasing a criminal throughout the world and time;



» [PC] The player begins *Companions Of Xanth* sitting in front of a computer screen, awaiting delivery of the titular game.



» [PC] *Spellcasting 301*'s intro left players in no doubt as to its tone.

meanwhile, *Spellcasting 101*, in the tradition of its designer's former output such as *Leather Goddesses Of Phobos*, the fantastical element was combined with a certain bawdy nature. "I was a little shocked initially at how raunchy the humour was in *Spellcasting 101*," recalls Mike. "At one point I thought, 'Oh my God, are we really doing this?' In hindsight, it's quite tame, but back then the industry was quite conservative, and we were conscious our funding was coming from a defence contracting company with some pretty stern ex-military guys running its operations!" However, despite the occasional mild enquiry from ASC, Legend's backing were very supportive of the developer, ex-nuclear submarine commanders and all.

From the early days of adventure games, it had enjoyed a symbiotic relationship with the printed word. *The Hobbit* (Melbourne House, 1982) had forged the way for games based on books, a path that Legend took after the moderate success of its first two games; the strategy would prove to be a vital one. "Each of our designers had their favourite authors," explains Bob, "so we started contacting their agents and the process was pretty simple back then. It was the beginning of the cross-media era so many of them were curious about this new idea, seeing their worlds ▶



COMPANIONS OF XANTH

1993

■ While the shift away from text input may have disappointed some, there was no doubt the improving tech would ensure that expansive graphical games such as this were the way forward. Based on Piers Anthony's novels, *Companions Of Xanth* begins in the present day as the player accepts a challenge within the latest computer game. Designed by Michael Lindner, there are plenty of nods to the genre to keep the player entertained as they are drawn into a power struggle between two demons. In retrospect, a little clunky and obtuse to play, but an evolutionary step nonetheless.



THE WHEEL OF TIME

1999

■ After its acquisition by GT Interactive, Legend shifted its focus firmly to the world of first-person shooters. Loosely based on the works of Robert Jordan, the adventuring and puzzle aspects that Legend had become famous for are inevitably toned down, as the player searches for a collection of missing seals while battling enemy assassins. Designed by Glen Dahlgren, *The Wheel Of Time* is based on Epic's Unreal engine, and is a beautiful game, that required a hefty PC at the time to play. Yet, while it's undoubtedly fun to play, it lacks the depth of Legend's adventure games.



UNREAL II: THE AWAKENING

2003

■ Legend's final game is alas also one of its most disappointing. The original *Unreal* had proven to be a surprise breakout hit in 1998, and way ahead of the curve graphically. Unfortunately, by 2003, rival technology had caught up, and the spin-off multiplayer *Unreal Tournament* had stolen the series' fire. Development hugely consumed Legend's time with Bob Bates penning its story, Glen Dahlgren producing, along with programmer Mark Poesch. Bearing virtually no resemblance to the first game, *Unreal II* is an attractive if familiar experience in a sea of first-person shooters.



THE DNA OF LEGEND

HUMOUR

■ Legend's remit was that its games should entertain. Thinking up different ways to amuse the player while they tried to solve puzzles led to a wicked streak of humour through most of its games. Steve Meretzky's *Spellcasting* games come out on top here. Fnar.

LITERARY ORIGINS



■ The adventure games of Legend were given an extra sheen of respectability thanks to their book-based roots. The licensing of renowned sci-fi and fantasy authors such as Frederik Pohl and Terry Brooks greatly improved the evocative tales of each game.

ADVENTURER SPIRIT

■ Despite 1993 bringing that little game known as *Doom*, Legend plugged away with the adventure game genre, bringing pleasure to the genre's dedicated fanbase. The graphics and input may have changed, but the love of adventuring never dwindled.

ADAPTING TO THE MARKET



■ Despite Bob and Mike's love of the parser-driven text adventure, it was clear to them it was never going to make them much money in a quickly-changing, technology-driven market. The solution was to embrace the new era of colourful graphics and mouse-focused input methods, which is wise seeing the scheme stuck around.

SAUCY

■ Sierra's *Leisure Suit Larry* games had already proved there was a market for saucy gaming, while *Spellcasting*'s designer Steve Meretzky had also honed his craft on Infocom games, such as *Leather Goddesses Of Phobos*. While it may have been pushed a too far on occasions, and you would never get away with dubious content like this today, there's no doubt it helped sell a few copies of Legend's games.

AUTHOR-PLAYER BOND

■ The nature of the adventure game genre gave it a magical connection with players like no other: talking to one person, the designer, rather than a team of 100 people. That unique moment of solving a puzzle also brings the player closer to the person who's trying to either stump or amuse them at every turn.



» [PC] Steve Meretzky's *Superhero League Of Hoboken* sports a somewhat clunky mix of RPG and point-and-click elements.



» [PC] Random House author Terry Brooks saw his famous work *Shannara* translated to a point-and-click adventure by Legend.

▶ represented in interactive fiction." Consequently, while the cost for these licences was originally low, it steadily rose as the awareness of PC gaming as a games platform increased. The first person to see their work on-screen from Legend was sci-fi author Frederik Pohl. Written by Glen Dahlgren and Mike Verdu, both Gateway and *Gateway II: Homeworld* were based loosely on the books, and used the established Legend text adventure engine, with a few modifications to help bring the Heechee universe into interactive fiction.

Meanwhile, back on Earth, a new technological expansion was about to have a huge impact on Legend's business model, as Mike explains. "While we were never exactly rolling in money, our games sold well enough that we didn't have to take on any additional funding in those first few years; we were able to grow our staff and improve our core technology." Legend's games had carved a decent niche in the market, albeit one that was soon to disappear with the advent of the CD as a method of storage. "As far as we were concerned, the CD-ROM revolution was actually a nightmare," continues Mike. "On one hand, we were suddenly able to deliver very high-quality graphics and audio, levelling up the production values of the games exponentially. This was creatively very liberating. But what most people don't remember about that time was that the market caught the attention of Hollywood, the huge media, toy and book companies. Money flooded into CD-ROM game development, like a precursor to the dotcom boom. Production costs shot skyward as everyone competed for resources and projects with CD-ROM often had budgets ten times what we were investing in ours. It was a disaster." Despite the cost, the result was a glut of poor FMV games, as well as quality adventures, that threatened to extinguish companies such as Legend. "It was a blessing and a curse," concurs Bob. "While we no longer had to ship games on multiple floppy discs, I believe it helped contribute to the demise of adventure games as a genre." Now, legions of artists were required to satisfy the consumer demand for the range of colourful graphics that the medium could house. "We responded by becoming more graphics-focused ourselves," continues Bob, "but with the cost far outstripping the money we could make, it was clearly the beginning of the end."

Companions Of Xanth, another lighthearted adventure, based loosely on the novel *Demons Don't Dream* by Piers Anthony, marked the point at which CD-ROM began to take over, with the game released on both CD and floppy disc. Mark Poesch recalls, "In the early days it was about bringing the story and puzzles to life. The music and artwork created a mood, but they were secondary, as evidenced by the graphic window which occupied the top-right quarter of the screen. The move to the Xanth engine was a very exciting time though; we spent many lunchtimes discussing the user interaction, debating the viability of maintaining a text parser and input mechanism, while at the same time eliminating keyboard input entirely."

Despite its use of 320x200 MCGA resolution graphic the responsibility of artists ballooned, while the whole concept of voice production arrived. "We were still in an ultra-primitive era, light years away from the transition towards movie-making," continues Mark. "But the graphics, sound, voice and music were bringing the games to life in a way that marked an important step forward."



» [PC] *Gateway 2*'s intro sequence was barely animated, yet still striking for the time.

"I RECALL BEING BLOWN AWAY BY [EPIC'S] UNREAL DEMO"

Mark Verdu

As with the rapid change of the 8-bit market ten years earlier, the videogame landscape was terraforming again. Bob and Mike began negotiating publishing deals in order to keep their company afloat.

"Legend was a publisher, which is to say we handled all aspects of the business up until the games were delivered to retail," Bob explains. "We developed, duplicated, wrote and printed the manuals, designed and created the boxes, created the finished goods which were loaded onto pallets and delivered to the warehouse of our distributor." Distribution was the critical challenge, and with development costs rising inexorably, agreements with Microprose and Accolade affiliate label programs helped keep the games coming. When, in 1995, publisher Random House invested in Legend, it appeared the CD-ROM boom storm had been ridden. A new generation of complex graphic adventures such as the beautiful *Shannara*, and the sleek Michael Dorn-starring *Mission Critical* appeared, usually based on works by Random House authors. "But the sales for these products were not high enough to offset the arms race in production values," says Mike. Random House, nervous of the spiralling developing costs, withdrew from the world of interactive fiction. Legend's next step was to find another investor, this time GT Interactive, publisher of the monster hit, *Doom*. "[GT] were already distributing some of our products, and we were already doing development work for Epic," recalls Bob. "So it made sense to consolidate the relationship."

To begin with, this relationship continued to flourish, despite a change of genre direction for Legend. By 1998, adventure games were being pushed aside by the incredible popularity of first-person shooters. "I had mixed feelings about that," says Bob. "On one hand it was hard to watch as adventure games became less popular. But it was exciting to take our expertise in storytelling and puzzle design into a whole new genre." Legend used the hidden similarities between the genres – presenting the player with a challenge via a puzzle and solution, and creating worlds in which their actions make sense and entertain – to produce *The Wheel Of Time*, a fantasy-themed FPS based on the series of books by Robert Jordan. In a crowded genre, Legend's Glen Dahlgren designed a refreshing game that drew plaudits, if not stellar sales. "Glen led the push towards *Unreal* tech," remembers Mark, "and I recall being blown away by their *Unreal* demo. Tim Sweeney [Epic cofounder] sent us a copy of the source code and we got our hands on UnrealEd. It was a magical time." The ambitious vision for *The Wheel Of Time* impressed and terrified in equal measure. "It was a huge struggle," continues Mark, "but the compromise vision was ultimately successful in realising many of Glen's original ideas." Unfortunately, 1999 proved to be a dismal year for Legend's new owner, culminating in GTI itself being acquired by Infogrames in the last quarter of the year. Mike remembers, "I felt good about the sale to GT; but was less happy about the subsequent sale to Infogrames. Bob and I had a series of bosses around the world. It was a very strange time." In 2001, Mike left Legend, convinced the corporate environment was not a place for him to achieve his best work.

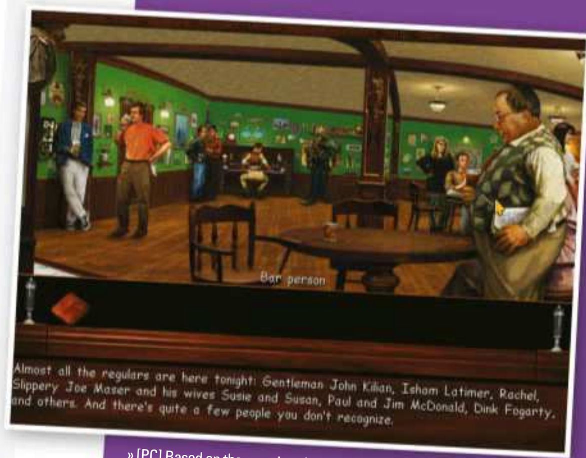
Legend's final game was the sequel to Epic's oft-forgotten FPS, *Unreal*. By then, Infogrames had rebranded itself as Atari. "Atari was a fragmented company, with decision making split between France and New York," reveals Bob. "After *Unreal II* came out, we helped some of their other studios as we pitched our own projects to executives on both sides of the Atlantic." Unfortunately, none of Legend's proposed games appealed to either group of suits. After shipping the *Unreal II* multiplayer expansion, Atari concluded the final quarter of 2003 had been too disappointing, and closed Legend down.

"The early days were the best," concludes Bob. "We had successes, we had fun and we had a good business model. As the industry changed, everything became more complicated and harder. We had a talented team and they worked well together; there's a lot of dysfunction in the industry, but that rarely surfaced at Legend. Our people were smart, dedicated and talented, and our games reflect that. Legend was a true success story, not just for the games we made, but for the culture we were able to maintain." *

Thanks to Bob, Mike and Mark for their time.



» [PC] The beautiful, if run-of-the-mill, *Unreal II: The Awakening*.



» [PC] Based on the amusing short story collection of the same name, *Callahan's Crosstime Saloon* brought easy, yet fun adventuring.

WHERE ARE THEY NOW?

Bob Bates

■ After Legend closed, Bob became an independent consultant, providing game-doctoring skills for a wide range of developers. In 2010 he became chief creative officer for Zynga before going independent once more four years later. Today, he has harked back to the golden age of Legend with *Thaumistry: In Charm's Way*, a new indie comedy text adventure, which is available from www.thaumistry.com or via Steam.

Mike Verdu

■ Since leaving Legend, Mike has enjoyed an eclectic and successful career. First, he joined Electronic Arts in 2002 to work on its then-latest *Command & Conquer* game, *Generals*, before becoming an executive producer for this and other franchises in 2005. After a spell as general manager for EA's Los Angeles studio, Mike joined Zynga in 2009 as VP of games, and eventually, CCO. Post-Zynga, he formed his own mobile company, TapZen, which he sold to Kabam in 2015. Today he remains at Electronic Arts, heading up most of its mobile studios.

Steve Meretzky

■ The designer of amusing adventures such as the *Spellcasting* series and *Superhero League Of Hoboken* has mainly been involved in mobile gaming since the Nineties, and is today VP of games at King San Francisco.

Mark Poesch

■ Post-Legend, Mark joined AOL in July 2004. Today he is an iOS developer at Accenture.

Glen Dahlgren

■ The former creative director at Legend assumed a similar role in charge of *Star Trek Online*, before working on a variety of platforms and formats. Today, he freelances, writes and teaches game design at UC Berkeley.


2
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Super Aleste

AND EVERYONE SAYS THE SNES CAN'T SHIFT SPRITES…

» SNES » COMPILE » 1992

Of course it was going to be Compile that made one of the best shmups to appear on the SNES, a system not exactly known for chucking sprites around. Compile's pedigree was incredibly impressive on machines like the MSX, Master System and PC Engine and it translated that technical expertise to Nintendo's 16-bit console in the form of *Super Aleste*, delivering a fast-paced experience that shouldn't have been possible with the machine's apparently 'sluggish' CPU.

The stages of *Super Aleste* are not only filled with lots of enemies and projectiles, but everything runs at a fantastic pace too, creating a real visual overload as you play. It's an exceptionally fast-paced shooter that feels more like the blasters I enjoyed in arcades or on my beloved Mega Drive. In short, it's rather excellent.

It doesn't just look the business, though. *Super Aleste* is also highly enjoyable from a mechanics perspective, building on the eight-weapon power-up chip system of the earlier games, but also maintaining nods to shooters like *Gunhed* (also by Compile and known in the west as *Blazing Lasers*). Ship energy is tied to the power of your current weapon, while each of the eight available weapons has different functions that can be manipulated via the Shot-Control button. This added complexity offers a surprising amount of strategy, and also means that plenty of experimentation is required in order to know what weapons work best against *Super Aleste*'s many memorable bosses.

Don't be put off by the console's reputation, *Super Aleste* is pure sprite heaven.

SPIDER-MAN VS THE KINGPIN



AS WELL AS SELLING TO SCORES OF MEGA DRIVE OWNERS, SPIDER-MAN VS THE KINGPIN WAS ALSO REIMAGINED FOR THE MEGA-CD. JON MILLER AND DAVID FOLEY TELL RORY MILNE HOW SPIDEY WENT 16-BIT



IN THE KNOW

- » **PUBLISHER:** SEGA
- » **DEVELOPER:** RECREATIONAL BRAINWARE
- » **RELEASED:** 1991
- » **PLATFORM:** MEGA DRIVE, MEGA-CD, VARIOUS
- » **GENRE:** PLATFORMER

Aside from a trio of well-received graphic adventures, Marvel Comics didn't have the greatest of success with videogames during the Eighties. At the dawn of the Nineties, however, a contract with Sega Of America to publish a *Spider-Man* game for the-then cutting-edge Mega Drive seemed like a sure thing. Unfortunately, Sega's first choice of developer – an east coast outfit called Innerprise Software – failed to make progress quickly enough, and so the *Spider-Man* licence was handed over to the west coast developer Technopop, which although starting from scratch, made real headway before internal and inter-company disputes resulted in the firm imploding. With time in short supply, former Technopop coder Burt Sloane was asked to take on the licence himself, although as developer Jon Miller explains, Burt soon saw the benefits of having a partner. "Burt was roommates with my brother Mark, who was working on the music and sound effects for the game," Jon begins. "I was on the east coast in Boston, and they were in San Francisco. I had been talking to my brother, he'd been telling me about what he was doing, and it sounded a lot more fun



» [Mega Drive] If left undefeated, the villains in *Spider-Man Vs The Kingpin*'s final stage mount a boss rush.



» [Mega Drive] The colours that the Kingpin's bomb flashes dictate the colour of the keys you should use to defuse it.

than what I was doing. After the Technopop split up, Burt was the only programmer, and he thought he needed some help."

Soon after Jon joined Burt, however, it became apparent that Technopop had made more progress on some aspects of the *Spider-Man* licence than others, with the result that its levels and gameplay fell short of its beautifully animated, comic book-faithful lead character, not to mention the game's eastern inspiration. "I contracted with Sega to help get it out the door," Jon recalls, "but it hadn't been optimised to ship – it wasn't hitting its target framerate, it didn't fit into the cartridge size allocated to the game and at the same time it wasn't large enough. One of the inspirations was the *Revenge Of Shinobi* game that came out of Japan. That was just a really slick, beautifully-done, beautifully-tuned side-scrolling game; that was the inspiration for how things should work."

The daunting challenge of elevating the quality of Sega's *Spider-Man* project while at the same time expanding its world and reducing its file size didn't go unnoticed by the game's developer turned producer Ed Annunziata, who responded by pitching in. "Burt had made these tools for the Macintosh," Jon notes. "His previous gig had been working with Apple in the Mac group, so he was familiar with doing GUIs. There was a level editor that let you quickly scroll around, zoom in and out, copy and paste regions of tiles, and attach collision and enemy information graphically. So he gave a copy of these tools to Ed, and Ed helped expand the size of some of the levels."

One outcome of this focus on level design was the realisation that Spidey's signature moves suited different environments, so stages became increasingly tailored to certain abilities. "There were plenty of levels – like the initial warehouse scene – were there were a lot of vertical walls and platforms that you had to jump between," Jon observes. "You could swing, but it moved you too fast and without enough control, so you ended up crawling. There was a lot of serendipity; it was difficult to plan that out on paper. And so you built stuff with what you thought was going to work with the mechanics and you would try it."

A key mechanic in Spider-Man's evolving Mega Drive debut was based on his uncanny ability



» [Mega Drive] The first challenge in *Spider-Man Vs The Kingpin* is to take down an armed thug.

ADAPTATION ANTICS

The other conversions of Spider-Man Vs The Kingpin



MASTER SYSTEM

■ Although the version of *SVK* for Sega's 8-bit console shares the same design with its 16-bit equivalents, the Master System adaptation differs greatly in terms of its specifics. Its levels are smaller, simpler and scroll more slowly, and so in order to increase the challenge you only get one life and the stages have to be cleared of opponents before the boss appears. This version also features a cameo from Doctor Strange.



GAME GEAR

■ In many respects, *SVK* on the Game Gear is identical to the Master System version, but to leave it there would be doing an injustice to Sega's handheld. The key difference is that the Game Gear displays the visuals in a zoomed-in form, which has the effect of negating expansive empty areas and making stages and cutscenes look less sparse. It also boasts a slightly better sounding *SVK* than its set-top counterpart.



MEGA-CD

■ Technically a conversion of the Mega Drive original, the Mega-CD *SVK* adds enough enhancements to be considered a different game. Beyond extra stages bossed by the Vulture and Mysterio, and cameos from Bullseye and Typhoid Mary, the Mega-CD iteration has a speedier, more fluid Spidey and more smoothly animated foes. There's also a selectable level system, FMV, CD-quality audio and a comic book hunt.



"THE VILLAINS IN THE COMIC BOOKS LENT THEMSELVES TO BEING BOSSES … THE LIZARD COULD SWAT WITH HIS TAIL AND ELECTRO COULD ELECTRIFY GIRDERS"

Jon Miller

▶ to spin webs and swing from them, which seems like a developer's dream but actually caused a few nightmares. "One of the things that was great was the 'swinging from the web' mechanic," Jon enthuses. "It was pretty cool; it was something that was unusual, and I think it worked well, but the problem was that it allowed you to traverse huge distances very quickly. So you could jump and swing over everything, and that was a little bit of a challenge. So Ed took the sewer scene, and he kept adding regions off to the sides to swing into."

Of course, the ever-expanding sewer level required opponents for Spider-Man to fight, which ranged from mutants to alligators. The stage finished with a supervillain boss, in keeping with all of the other levels in the evolving game.

"Obviously the villains in the comic books lent themselves beautifully to being the bosses in the game," Jon points out. "There were some places where there were obvious things you could do, like the Lizard could swing around and swat with his tail – so that gave a nice, quick distance attack. And then Electro – he could squat down and electrify the girders, which was also a great foil for the 'sticking to walls' mechanic."

As well as systems based on Spider-Man's abilities, an additional mechanism was devised using static sprites and background tiles, which took inspiration from Peter Parker's talent for taking shots of his battles as Spidey and selling them for web-fluid money. "The storyline was interesting in that Peter Parker was a photographer," Jon reflects, "so was there a way to pull that into the game mechanics? And then it was also just a cool technical thing to be able to do. The Mega Drive was not a bit-map machine, so what Burt did for the photos was actually a lot more complex. I think that was a kind of surprise when you were playing the game and saw the photo get captured like that."

A second surprise awaited players in the form of a gruelling finale involving the dramatic rescue of Spider-Man's girlfriend and a brutal showdown with the criminal genius underpinning the plot in Spidey's inaugural Mega Drive title – the Kingpin, the difficulty of which Jon puts down to expediency. "There was one number somewhere that said how many times you had to hit a boss, and you could turn that up high. It wasn't necessarily the most satisfying way of creating difficulty, but you wanted your final boss to be the most spectacular of your efforts and the hardest





» [Mega-CD] Electro's lightning blasts can be deadly, but the villain's powers don't work when he's webbed-up.



LETHAL FOES OF SPIDER-MAN

How to take down Spidey's rogue's gallery



DOCTOR OCTOPUS

■ Keep low to the ground to avoid Doc Ock's tentacles and then fire webshots at him between his attacks. In the Mega-CD version, webshots stick Doc's arms together rather than causing damage, so get a punch in after each shot.

LIZARD

■ It's webshots all the way for the Lizard in the Mega Drive original, but start shooting standing up, as shots taken while crouching have no effect. Ignore this for the Mega-CD version – just web then punch or kick him and repeat.





ELECTRO

■ Keep your distance from Electro in the Mega Drive version, get to a high girder and then repel him with webshots each time he attacks from below. For the Mega-CD adaptation, jump, webshoot him as you fall and then pummel him.

SANDMAN

■ You can punch and kick the Sandman, or use all your webbing on him, but it's a waste of effort. The trick – in both the Mega Drive and Mega-CD versions – is to lure him to a fire hydrant, turn it on and wash him down the sewer.





» [Mega-CD] Although Doctor Octopus is defenceless up-close, his mechanical arms make excellent long-range weapons.



» [Mega Drive] Venom gleefully menaces a victim while conducting a home invasion. Where's our friendly neighbourhood Spider-Man!?

to play. Between trying to make it interesting graphically by having a lot of stuff on the screen and wanting it to be tuned to be hard that's why we ended up with it like that."

In addition to providing Spider-Man with a punishing boss fight, the Kingpin also headlined Sega's game – *Spider-Man Vs The Kingpin*, although the fact that its box-art simply read 'Spider-Man' did nothing to hinder the success of the game on release. "It was a hit game; it sold a lot of copies," Jon confirms. "That one felt like pretty much a hands-down success. I remember going into Toys R Us and seeing the game featured in the racks of videogames – that was a trip! It was the first game that Burt and I – and my brother – had ever been involved with, so it felt like a pretty great first accomplishment. The game was very good, and then you had the most killer license that you could get your hands on, so it made quite a combination."

On reviewing *Spider-Man*'s introduction to the Mega Drive now, Jon expresses pride, but gives most of the credit to Marvel for creating such a videogame-friendly character and his former coding partner Burt Sloane for taking the lead on the project. "The Marvel licence came with a bunch of ideas that were just part of the storyline, part of the character," Jon acknowledges, "and I think Burt did a good job capturing things like the web-shots and the web-swinging and sticking to walls. Those all gave it a little different feel than some of the other fare coming out at the time, and I'm proud of the contribution I made; it was definitely great to have my name put on that."

But returning back to the year after the release of *Spider-Man Vs The Kingpin*, there's a second chapter to the game's story. Around this time, a team led by Burt Sloane were tasked with reimagining the hit title for a newly released Mega Drive add-on, as team member David Foley recollects. "The biggest thing for Sega was that it had the Mega-CD, which was not very commercially successful," David observes, "so it was dying for content and asked what we could do that was quick. *Spider-Man* was a big title for Sega, and knowing that we had done levels and characters that had to get cut in order to fit the cartridge the producers knew we had more that could be put in as bonuses without a lot of time and effort on the creative side."

But far from merely reinstating cut content, Burt and his team gave their lead character Spider-Man more fighting moves and made him and his super-powered foes move faster and more smoothly, which as David explains was facilitated by better software and hardware. "A lot of enhancements were able to take advantage of having a little more horsepower, and the engine had matured quite a bit in that timeframe too. We had the Mega-CD, and we literally couldn't think of things to fill it up with. We were going from kilobytes to megabytes, so anything you had you could throw at it. You could do a lot more moves because you had ▶



HOBGOBLIN

■ A steady stream of well-aimed diagonal webshots will knock the Hobgoblin out of the sky in the Mega Drive *SVK*, for the Mega-CD iteration, flying kicks are the order of the day, but keep well clear of Hobgoblin's pumpkin bombs.

VENOM

■ For the Mega Drive original, keep moving to avoid Venom and then shoot webshots in short bursts when he's in range. Defeating the psycho Symbiote in the Mega-CD version requires you to find a church and ring both of its bells.

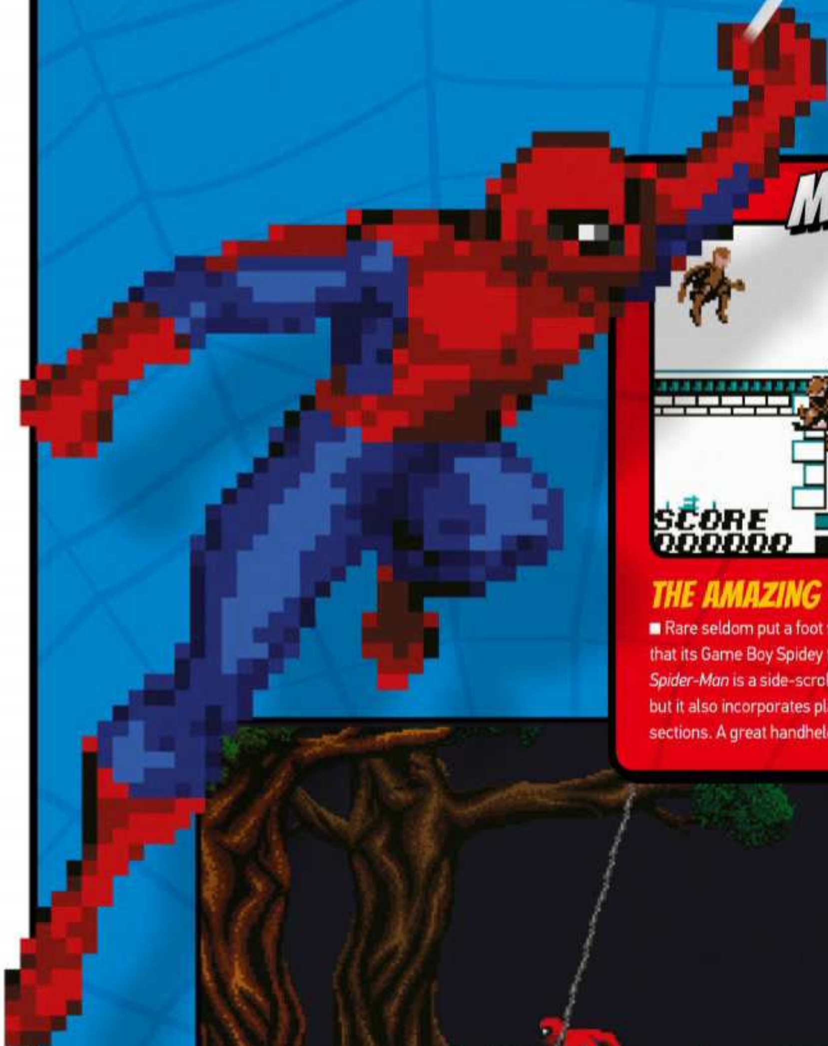




KINGPIN

■ As the final boss, you would expect the Kingpin to be tough, and he doesn't disappoint. Flying kicks that connect as you drop will do some damage, but even if you continually use your webshields he presents a serious challenge.





MORE SPIDEY ADVENTURES



THE AMAZING SPIDER-MAN

■ Rare seldom put a foot wrong in the Nineties, so it's no surprise that its Game Boy Spidey title is top-notch. At its core, *The Amazing Spider-Man* is a side-scrolling brawler punctuated by boss fights, but it also incorporates platforming and vertical wall-crawling sections. A great handheld adaptation.

SPIDER-MAN: THE VIDEOGAME

■ Technically a beat-'em-up *and* a platformer, Sega's Spidey coin-op alternates between the two genres. The four-player title zooms in on the action for brawling and pans out for platforming, which sounds strange but works well. Best of all, Sega's game is crammed full of supervillains.





» [Mega-CD] Spidey was scuffling with Sandman years before Sam Raimi's *Spider-Man 3*.



» Spider-Man inspired the design on the helmet that David Foley wears when he's auto racing.



▶ a lot more storage, so instead of a four-frame walk sequence you could put in an 18-frame walk sequence, and instead of having only one punch, you could have several different punches."

In addition to greatly enhancing the characters from the Mega Drive original, Burt's Mega-CD team also found time to add two extra stages with new bosses Vulture and Mysterio, and to flank the Kingpin with the supervillains Bullseye and Typhoid Mary. "With new characters, it was really a matter of trying to make sure that they fitted in with the artistic style so that we weren't completely redrawing the game," David reasons, "and then following the direction of the producer by asking: 'What do you want us to add?' It was starting with what would be the coolest things we could do – like the Vulture flying around – and then, within the limitations of what the engine could perform, what could we actually pull off?"

Due consideration was also given to owners of the *Spider-Man* cartridge, which resulted in a map of boss-controlled areas that players of the CD version could choose from. "The producer was assuming that the game had been played by most players, that the first time they were visiting this property wouldn't be on the Mega-CD," David acknowledges. "This was going to be more: 'I want to play this level again, and I want to be able to access everything.' Maybe they wanted to play one of the old levels or play a certain boss, but not be forced through the entire game. So the onus of having to have 40 hours of gameplay to get to the end was lifted off the player in the CD version."

Besides making gameplay improvements, the developers under Burt's charge also produced fullscreen animated cutscenes in order to take advantage of the Mega-CD's extra storage space, which in hindsight David is quite humble about. "It was really a matter of giving an artist a sequence to render and then how do we compress that down to play back? The good news was that we didn't have to be that efficient because even blown-out the actual game only took about a megabyte of the 650 that we had on the CD. You've also got to remember that the resolution



MAXIMUM CARNAGE

■ Spidey's psychotic foe Venom shares equal billing in the Pickford brothers' SNES/Mega Drive brawler, although there's no two-player team-up option. That aside, *Maximum Carnage* scores points for its breadth of fighting moves, eclectic rogues gallery and superhero cameos.

THE SINISTER SIX

■ *The Sinister Six* doesn't do anything particularly new with the *Spider-Man* licence, but its depiction of the character and gameplay balance are spot on. Spidey is fast, fluid and responsive, which makes wall-crawling a joy, and the game's sinister bosses are tough but not unbeatable.





MYSTERIO'S MENACE

■ *Mysterio's Menace* is about as impressive as sprite-based *Spider-Man* games get. In particular, the four-directional brawler replicates the hero's insane acrobatics perfectly, but also worth mentioning are its branched storylines, upgradeable suits and accurately depicted enemies.

"THE RESOLUTION WAS PRETTY CRAP, SO THE VIDEO WASN'T TAKING A LOT OF SPACE. I DON'T KNOW IF IT ADDED ANYTHING TO THE GAME"

David Foley





was pretty crap, so the video wasn't taking a lot of space. I don't know if it added anything to the game, but it was a time where video was really cool. So I think the wow factor was there just because you had streaming video at all."

Equally impressive was the rock guitar CD soundtrack produced especially for *Spider-Man*'s Mega-CD outing, which David recalls preferring to the chip tunes in the original game. "Obviously you were getting a huge improvement just because you're going from the horrible audio chip in the machine, which was just basically tones, to actual audio files. So I think that was a huge leap."

A final innovation involved a competition to win Marvel books and other prizes, which was open to players who could collect 21 reproduction comic book covers on 'nightmare' difficulty, although surprisingly Marvel didn't suggest this feature. "I don't know about the participation level, but I know that concept came from the producer from Sega," David muses. "This was the golden age of licences, where comic book companies or movie studios had very little input. So Marvel would take a look at it, but they were just happy to get a license out of it."

After gaining Marvel's – and Sega's – approval the retitled *The Amazing Spider-Man Vs The Kingpin* hit shop shelves where it was well received by Mega-CD owners and reviewers alike, although its creators were left to guess how well it sold. "I thought it was pretty soft," David considers, "but then again, we didn't have any insight into how many units of Mega-CDs were selling at the time. But we got a lot of positive feedback from Sega; it really liked the release. And we would have heard if it wasn't pleased with the sales – it was very much that the accolades were minimal, but the complaints were always very vocal."

With hindsight, David feels that if the narrative for the Mega-CD *Spidey* title that he worked on more than 15 years ago had been slightly tweaked it may have netted further assignments from Marvel for Burt Sloane's team. "I would have done a lot more cliffhanger work to try and spawn more *Spider-Man* projects," David concedes. "Maybe bring in some characters that weren't in the gameplay, villains that would make a cameo to hint that they would be in the next release. I'd set things up for a sequel to try to secure some more work for us."

But besides this regret, David looks back with satisfaction on his part in adapting and enhancing the Mega Drive hit. "It was a pretty neat release. It was early on in the life of the Mega-CD, and it was late on for the Mega Drive, but I think we kept true to the original game and made enhancements that made it worthwhile to the players. Sega was looking for a quick release – not a two-year project or something, and so I think it came out great in terms of the time constraints. It gave players the ability to play the extra stuff but also jump around and replay some of their favourites." ★

Many thanks to Jon Miller and David Foley.



DEVELOPER HIGHLIGHTS

SPIDER-MAN VS THE KINGPIN
SYSTEM: MEGA DRIVE, VARIOUS
YEAR: 1991

TAZMANIA
SYSTEM: MEGA DRIVE, VARIOUS
YEAR: 1992

CHAKAN (PICTURED)
SYSTEM: MEGA DRIVE
YEAR: 1992



PlayStation 2

» MANUFACTURER: Sony **» YEAR:** 2000
» COST: £300 (launch), £15+ (today)

The PlayStation 2's launch was accompanied by an unprecedented wave of hype, and it would ultimately go on to become the best-selling console ever. Though great games were slow to arrive, in part due to the difficulty of working with its complex custom Emotion Engine CPU and Graphics Synthesizer GPU, the console's overwhelming commercial dominance ensured that it gained an enormous and diverse library with many high quality games.

The black, boxy design of the hardware was considered to be something of an Eighties throwback, but it was unique and forward-thinking in that it was designed to stand vertically or horizontally – even the logo on the motorised disc tray could be rotated to match. Disappointingly, the system offered only two control ports at a time when its competitors had four, however it also included two USB ports for peripherals and a FireWire port for linked play, as well as a PCMCIA expansion slot for a hard disk and network adapter. DVD movie playback was also a standout feature, bolstering the system's popularity. The hardware was produced in a variety of colours and underwent a number of revisions over the years, replacing the PCMCIA slot with an expansion bay, losing the FireWire port and gaining an infrared receiver for remote controls. *





Playstation 2 fact

■ In design terms, the PlayStation 2 owes a debt to the unreleased Atari Microbox, a computer that could stand vertically or horizontally and looked like two conjoined boxes. Atari's design is actually referenced in Sony's patent applications for the PS2.

PROCESSOR: MIPS III R5900-BASED 64-BIT EMOTION ENGINE CPU (295MHZ)

RAM: 32MB MAIN MEMORY, 4MB VIDEO MEMORY, 2MB AUDIO MEMORY, 2MB I/O MEMORY

GRAPHICS: GRAPHICS SYNTHESIZER (147.5MHZ), 16 MILLION POLYGONS PER SECOND (WITH Z BUFFER, ALPHA, TEXTURE MAPPING AND FOG)

AUDIO: 2X SPU, 48 CHANNEL ADPCM PLUS SOFTWARE-MIXED DEFINABLE, PROGRAMMABLE CHANNELS

MEDIA: CD-ROM (UP TO 650MB), DVD-ROM (UP TO 8.5GB)

EDITOR'S CHOICE Ridge Racer V

Namco's arcade racer came in for some harsh criticism back in 2000, largely because it failed to revolutionise the *Ridge Racer* formula. With the benefit of hindsight, it's easy to see that major changes would have been an attempt to fix something that wasn't broken – the handling is satisfying and the track design is excellent. It's also an attractive early game for the system (though the lack of anti-aliasing leaves it with a jagged look), and the hard-edged electronic soundtrack fits the game's aesthetic well. Just avoid the PAL version if you can, since there's no 60Hz option.



THE HISTORY OF SAGA

YOU'D EXPECT THAT A SERIES WITH **SQUARE'S FIRST EVER MILLION-SELLING GAME** AND A THREE DECADE LEGACY WOULD BE ONE KNOWN TO EVERY GAMER – YET THE CHANCES ARE MANY OF YOU WON'T HAVE PLAYED A SAGA GAME AT ALL. NICK THORPE SPEAKS TO AKITOSHI KAWAZU ABOUT THIS PIONEERING RPG SERIES...



THE SAGA SO FAR...

THE FINAL FANTASY LEGEND
1989, GAME BOY

FINAL FANTASY LEGEND II
1990, GAME BOY

FINAL FANTASY LEGEND III
1991, GAME BOY

ROMANCING SAGA
1992, SUPER FAMICOM

ROMANCING SAGA 2
1993, SUPER FAMICOM

ROMANCING SAGA 3
1995, SUPER FAMICOM

SAGA FRONTIER
1997, PLAYSTATION

SAGA FRONTIER 2
1999, PLAYSTATION

UNLIMITED SAGA
2002, PLAYSTATION 2

EMPERORS SAGA
2012, BROWSER

IMPERIAL SAGA
2015, PC

SAGA: SCARLET GRACE
2016, PS VITA



» [SNES] Unlike *Romancing SaGa*, the sequel starts every player off from a common point.

If we were the sorts of people who wrote retro gaming quizzes, there are a number of questions we'd throw in to catch people out – and one of them would be, "What was Square's first game to sell a million copies?" We'd be genuinely surprised to hear anyone deliver the correct answer or *The Final Fantasy Legend*, or *Makai Toushi SaGa* in Japan. It's par for the course – what should be one of Square Enix's most celebrated series is far better known in Japan because of the games that were exported, half of them were renamed. Of course, that's if you're lucky enough to live in North America – in Europe, the series has barely made an impact at all.

The first game in the series, *Makai Toushi SaGa*, was a Game Boy project. "There was a new console coming from Nintendo and we wanted to put a game out for that. *Tetris* was a very popular game at the time, so in the back of our heads we were thinking, 'Are we going to make a game similar to that?'" recalls Akitoshi Kawazu, a long-term Square employee who served as director of the game. At the time, he was part of the *Final Fantasy* team. "Nintendo requested that we go for the combination of a handheld console with an RPG, and that's how the project started."



» [Game Boy] Battle scenes in the first game were very simplistic due to the system's limited display.

Handheld development was a new challenge not just for Square, but for the entire industry. The new hardware meant that adaptations had to be made. "There were two main differences when working on the home consoles and handhelds. Firstly, the handheld is run by batteries," explains Kawazu. "With an RPG you're used to long hours of gameplay, but that's something we had to have in mind – the batteries run out, so we had to adjust the amount of gameplay hours." The other difference was a product of Nintendo's design choices. "Home consoles at the time showed colour, but the Game Boy was monochrome, so we had to make sure there was nothing in the game that had to be expressed using colour."

In many respects, the original *SaGa* game was a standard RPG – your goal is to climb a tower that serves as a link between worlds, defeating enemies and developing your characters on the way to a final showdown. But one unique aspect of the game was how characters would develop – if you chose to be a human, you'd just get items that permanently boosted statistics, while mutants would develop randomly.

But monsters had a unique system in which they could eat meat dropped in battles, which would have different effects depending on a combination of the source of the meat and your character's status. "At the time, *Final Fantasy III* had just come out and we wanted to make something different," recalls Kawazu.



» Akitoshi Kawazu has worked on the *SaGa* series since the beginning.

> "AT THE TIME, FINAL FANTASY III HAD JUST COME OUT AND WE WANTED TO MAKE SOMETHING DIFFERENT"
> AKITOSHI KAWAZU







» [SNES] *Romancing SaGa* began the series' 16-bit era, and was the first game not to be localised into English.

Makai Toushi SaGa was a smash hit for Square on its December 1989 debut, becoming its first ever million-selling game and scoring 35/40 from *Famitsu*. For North American audiences, the game was renamed *The Final Fantasy Legend* to tie in with the popularity of the NES RPG. The game received a 3.7/5 score from *Nintendo Power*, and sold over 200,000 copies. "At the time we didn't expect it to do so well," confesses Kawazu, "but we were being told from people higher up, '*Tetris* is selling 3 million, so if you want to just aim from 3 million, that would be great!'"

While the game never hit the same sales as *Tetris*, it was clearly a

success and a sequel went into production. "We didn't originally have any intention to make a second one," Kawazu explains. "In my view, the first one was done, it was complete and it was fine as it was. But we were told it had done so well that we were going to make a sequel." With that in mind, the goal was to refine what was already there rather than reinvent the wheel. "The elements we changed were character development possibilities, as well as expanding the story – we just added a general sense of completion to the game," says Kawazu.

The plot of *SaGa 2: Hihou Densetsu* saw the players recovering the 77 Magi, fragments of the shattered statue of the goddess Isis. After the surprising end of the original game, in which the player's party fights God, *SaGa 2* goes crazy and lets you fight a whole bunch of deities. Odin, who revives you if you fail in battle, is one of the gods that must eventually be fought, and once defeated he will no longer revive you. "We wanted a system that would let you retry the battles, but we didn't want to just have a pop-up screen. We wanted something with a bit more flavour to it," says Kawazu. "We thought, 'What's the best kind of deity for that?' We decided on Odin coming from Valhalla – and then we built that into the story, 'Wouldn't it be great if we got to fight him?' For that bit where he can't bring you back, it was a realistic way to add a bit more difficulty."

SaGa 2: Hihou Densetsu was a successful sequel when it arrived in December 1990, selling around 850,000 copes in Japan and garnering



» [Game Boy] It's odd that they're in a cafe, we usually find them in canteens.

a 33/40 score from *Famitsu*. In 2006, *Famitsu* readers voted the game 94th in the magazine's top 100 games poll. Renamed *Final Fantasy Legend II* for North American continuity, the game also received 3.9/5 from *Nintendo Power*.

SaGa 3: Jikuu No Hasha was handled by the new Osaka development team at Square, as Kawazu and his staff had their priorities elsewhere. The game represented a shift for the series, as it moved from a stricter fantasy theme to one incorporating some sci-fi elements, including time travel, airships and robotics. The plot follows the destruction caused by the Pureland Water Entity, a creature which floods the world across time, bringing monsters onto land.

As well as the existing meat-eating mechanics, *SaGa 3* adds robotic parts to the mix, allowing you to transform your character. Eating meat will turn you into a primal monster and robotic parts will make you a cyborg, but you can reset classes by eating meat or installing parts, depending on which is the opposite of what you have done.

SaGa 3 arrived in 1991 in Japan as




» [SNES] Graphically, *Romancing SaGa 2* was a major step up from its predecessor.

"WE WANTED A SYSTEM THAT WOULD LET YOU RETRY THE BATTLES, BUT WE DIDN'T WANT TO JUST HAVE A POP-UP SCREEN"

Akitoshi Kawazu

» [PC] Even when you're not fighting actual gods, the scale of battles in *Romancing SaGa 2* can be biblical.



ROMANCE REVIVAL

***Romancing SaGa 2* was recently remastered, arriving in December 2017 for PC, PS4, Xbox One, Switch and Vita.** This marks the first time that the game has been officially released in English on any platform, and represents a return for the series after over a decade of absence from the European and American markets.

It seems strange to release it now, but the reasoning is sound. A remaster project had been undertaken in Japan, and English-speakers didn't want to miss the game a second time. "Many core fans appealed to Kawazu-san directly," reveals producer, Masanori Ichikawa. "They wanted to know why we weren't releasing the Vita version. I wanted to produce these for the western retro gamers.

"The base system is very similar, almost the same," says Ichikawa. "The graphics are completely changed, except that the character pixels are the same. In addition to the original content, there is also a new dungeon and the game now has New Game Plus. If you want to play the original version though, you can do that."

Kawazu believes that the different character development will go down well with western players experiencing the game for the first time. "Also, the progression of the town itself getting bigger, it's a different way of seeing progress compared to how RPGs are looked at in the west. That will definitely bring something new to the market. I hope players enjoy it!"





» [SNES] Battle scenes retained the traditional side-on view as late as *Romancing SaGa 3*.

Final Fantasy Legend III, it received middling to good reviews from the USA press in 1993 – 32/40 from *EGM* and 3.35/5 from *Nintendo Power*. It would be the series' last export for five years.

The reason that the Osaka team was developing *SaGa 3* is that Kawazu's team was busy working on *Romancing SaGa* – a SNES game, and therefore the first game in the series not to be designed for a portable console. "It was down to a request from Nintendo," says Kawazu. "It was the previous situation in reverse – 'You've made lots of games for a handheld, please can you make one for a console?' We were a lot more happy with that request! Finally we could use a home console to make a better game than what we were used to."

Romancing *SaGa* took a different approach to storytelling compared to its predecessors. Instead of having one very flexible party to follow through one story, now you'd follow eight characters through their own parts of a larger plot. "At the core, we wanted to make sure that this was a different kind of adventure to *Final Fantasy*," Kawazu explains. "There was a real question as to how we were going to achieve this. Within our team, people were asking, 'You're not going to have a linear storyline, is that possible?' It took a lot of consideration to build a game that doesn't follow a linear storyline, but to still have an ending."

Romancing SaGa was a major hit. Arriving in 1992, it sold 1.3 million copies in Japan, and earned a Famitsu score of 31/40. But *Romancing SaGa* was the first game in the series not to be translated, and this trend would continue throughout the SNES years. Fortunately, the 2005 PS2 version is the only one ▶

CHRONICLE OF THE **GOD SLAYERS**

The SaGa series isn't the only set of games that allow you to commit acts of deicide – here are five more examples

LUFIA II: RISE OF THE SINISTRALS

1995

■ The Sinistrals claim to be gods, and they're pretty powerful, so you probably want to take them at their word. They also just so happen to be evil gods, so in this case it's okay to track down the dual blade and slay the almighty.



GUARDIAN HEROES

1996



■ One of the game's endings can take you down this path. After finding out that they have been groomed as ultimate warriors, your characters swiftly turn on the almighty being that decided to do this and declare that they won't serve it.

GOD OF WAR

2005

■ Kratos is a pretty angry chap, but you would be if you had to serve the ancient Greek gods for a decade – they're a fickle bunch, after all. In this first game he decides to have it out with Ares, the titular God Of War, and that's just the start…

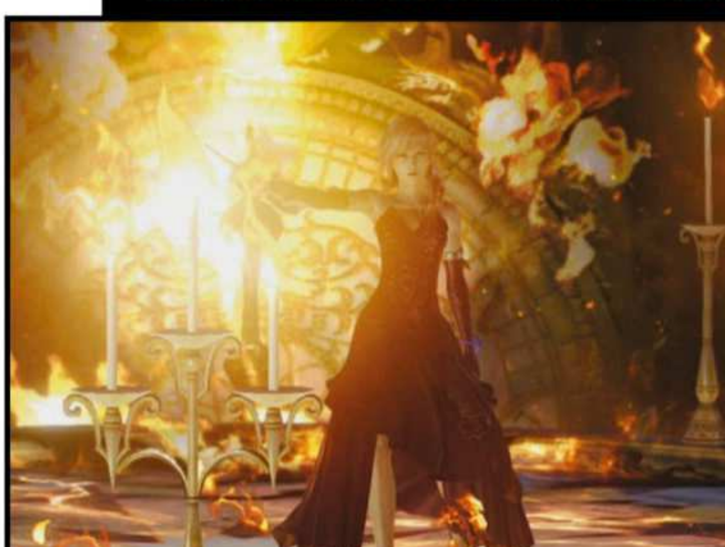


SCRIBBLENAUTS

2009



■ Now here's a strange example – in this game, you can summon a god. You can also kill it. There's no good reason for this, as the character is a perfectly friendly NPC, unlike the tyrannical overbeings that meddle with the fate of man in the other games here.



LIGHTNING RETURNS: FINAL FANTASY XIII

2013

■ This game's rather dour protagonist finds herself in a similar predicament to Kratos – she's serving a god, only to find out that Bhunivelze's plans aren't exactly what they seem. So she walks him to the valley of shadow and death, and ensures that he stays there.

RETURNING SAGA

Many of the SaGa games have been remade over the years

ROMANCING SAGA

2001, WONDERSWAN COLOR

■ This update was released for Bandai's handheld rather than the competing GBA due to Square's non-relationship with Nintendo at the time. The game features an additional scenario and the ability to collect all ten Destiny Stones, features planned for the original SNES game but dropped for space.





MAKAI TOUSHI SAGA

2002, WONDERSWAN COLOR

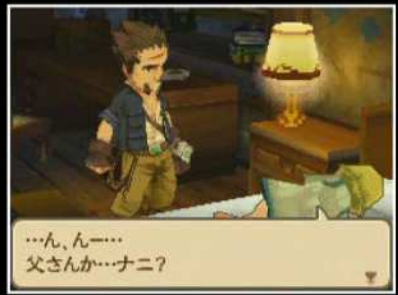
■ Rather than being a slightly enhanced port, this is a full remake featuring significantly upgraded graphics, new cutscenes and a variety of pleasant gameplay tweaks. If you want to play the original Game Boy version, that's fine too as it's also included. This version was the basis for a later mobile phone version.

ROMANCING SAGA: MINSTREL SONG

2005, PS2

■ Here's a full 3D remake of the series' first SNES game, complete with an English translation – albeit only for North American audiences, with Europe once again shut out. The game wasn't well received by the press, and holds a Metacritic score of 58.





SAGA 2: HIHOU DENSETSU – GODDESS OF DESTINY

2009, NINTENDO DS

■ This remake was designed to retain the short length of the original game, while adding new features. Character growth is easier to grasp and monster encounters have been altered, so that they're seen and encountered in the field rather than random ambushes.

SAGA 3: JIKUU NO HASHA – SHADOW OR LIGHT

2011, NINTENDO DS

■ Much like the *SaGa 2* remake, this remake features brand new cel-shaded 3D graphics, new artwork and an arranged soundtrack – and similarly, it was only released in Japan. Like most of the Japan-only *SaGa* releases, the fanbase have stepped in to provide an unofficial translation in the absence of an official alternative.







» [PlayStation] *SaGa Frontier* introduced a more dynamic battle screen, with shifting camera angles.

of the *SaGa* remakes to have received an English release prior to the 2017 version of *Romancing SaGa 2*.

Romancing SaGa 2 took another different path, this time focusing on the ruling dynasty of Avalon over many generations. The initial emperors are fixed, but you can choose your successors. "In the first *Romancing SaGa*, we had the eight protagonists. For the second one, we thought about how we could make it different, but keep the variety that we wanted to continue," Kawazu explains.

Despite being the most popular *SaGa* game to date, selling 1.5 million copies, *Romancing SaGa 2* was the least well-liked by Famitsu, scoring 26/40. The game was remastered in 2017, with Metacritic scores of 71 for PS4, 70 for Switch and 62 for Xbox One.

The final game of the SNES era was *Romancing SaGa 3* in 1995. It returned to the first game's system of choosing from eight characters as a protagonist, and this time followed the 'Death Eclipse' – an event occurring once every 300 years which kills all newborn life on the planet. In the past two instances, a single baby has survived and obtained enormous power – one choosing to follow a path of tyranny, the other heroism. The game was another hit, shifting 1.3 million copies, and a 34/40 score from *Famitsu*.

The series got a full makeover for its PlayStation debut, *SaGa Frontier*. The



» [PS2] With no overworld traversal, *Unlimited Saga* played encounters in static map screens.



» [PS2] The 'Sketch Motion' technique of *Unlimited Saga* allowed for some beautiful battle scenes.

game adopted 3D technology for the first time, with prerendered sprites, adventure areas, and real-time battle areas. However, this game is notable for its abundance of deleted content. Kawazu remembers that ambitious scope well. "There were some things that we created, but we never quite found the right places to use them, like music tracks. So we just left those there! Then there were other things where we couldn't make the implementation in time for the master submission."

SaGa Frontier was the first game in the series to retain the *SaGa* name outside of Japan, and released in 1997. The game was another success, selling a million copies and scoring 31/40 in *Famitsu*. The American press was also fond of the game, with *EGM* awarding it 8/10 and *GamePro* 5/5, but websites weren't quite as enthusiastic, IGN giving 7/10 and Gamespot offering 6.9/10.

For *SaGa Frontier 2*, the number of plots to follow was significantly reduced. Players could choose Gustave XIII, an exiled heir in waiting, or Wil Knights, a digger who seeks the truth about the death of his parents. These would intertwine and follow the descendants of the main protagonists, as had now become traditional in the series. Another graphical style change was made for this game. Some real-time 3D areas remained, but the bulk of the game was illustrated in a beautiful watercolour style.

"It actually was hand-painted!" Kawazu explains, before breaking into a rare English answer. "First hand drawing and scanning, and then digital effects." Returning to speaking through the translator, he says, "We did it because the technology could allow for that hand-drawn style. So we said, 'It's going to be really tough, it's going to be a lot of work, but it will come out beautiful.'"

SaGa Frontier 2 released in 1999 and sold over 675,000 copies, a strong number that doesn't quite live up to that of its predecessors. *Famitsu* gave it 35/40. *EGM* gave it 31.5/40 and *GamePro* handed down a 4/5, while IGN gave 7/10. *SaGa Frontier 2* was also notable as it marked the series' European



» [PlayStation] *SaGa Frontier 2*'s unique watercolour art style is lovely.

> "WE SAID, 'IT'S GOING TO BE REALLY TOUGH, IT'S GOING TO BE A LOT OF WORK, BUT IT WILL COME OUT BEAUTIFUL'"
>
> Akitoshi Kawazu

debut, a decade after the first game.

2002's *Unlimited SaGa* took the series to PlayStation 2. Another set of seven characters were introduced, searching for the 'Seven Wonders' that legends claim will bring a new era of peace upon discovery. The game took the unusual approach of making things more abstract – environmental traversal was almost board game style, with the player simply choosing directions at each new piece of terrain. Likewise, randomisation was added to battles through the use of slot machine-style reels, which determined whether your attacks and actions would have good outcomes or bad.

Unlimited SaGa was a polarising game. In Japan, it was well received. Scores included 31/40 from *Famitsu*, 21/30 from *The PlayStation 2*, 30/40 from *Dorimaga* and an A grade from *Dengeki PlayStation*. In the English-speaking world, the game was panned. *Edge*'s 6/10 score looks high next to a 4/10 from the *Official US PlayStation Magazine* and 28% from Gamespy. GamesRadar even went as far as to name it one of the 25 worst games of all time.

Since *Unlimited SaGa*, the series has been mostly confined to Japan. *Emperor's SaGa* was a mobile game featuring storyline elements from *Romancing SaGa 2* and *Romancing SaGa 3*, launched in September 2012. *Imperial SaGa* is a more traditional *SaGa* experience which launched for web browsers in 2015. As an Emperor or Empress, your goal is to win turn-based RPG battles to gain territory, with more



» [Vita] At the time of writing, *SaGa: Scarlet Grace* is not planned for release outside of Japan.

territory awarding new story events. This game is also free to play, and is still in operation today.

SaGa: Scarlet Grace is the most recent entry in the series, and as a Vita exclusive it's the first new *SaGa* game to be developed primarily for a handheld platform since the Game Boy years. The game was well-received by *Famitsu*, scoring 32/40, but it hasn't quite lived up to its predecessors in terms of sales, getting through 94,000 copies in the six weeks following its December 2016 release. An international release hasn't materialised, though Kawazu has stated his interest in bringing the game to a broader audience.

That's where the story of new games ends. But with Square Enix having made *Romancing SaGa 2* available in English for the first time, there's new material for any fan to get into. With luck, the next time we talk about the *SaGa* series, it will be better known on these shores. ★



» PUSHING THE LIMITS

Under Defeat

A vision of a console's lost future, courtesy of a developer that refused to let the dream die

» **PLATFORM:** DREAMCAST » **DEVELOPER:** G.REV » **RELEASED:** 2006

***Under Defeat* is the sort of game that shouldn't exist.** It hit the shelves the same week as *The Elder Scrolls IV: Oblivion* launched for the Xbox 360, some five years after the discontinuation of its host platform. But the ubiquity of Sega's Naomi board meant that it was viable for low-cost arcade releases at the time, and Dreamcast owners are a fanatical lot, so G.Rev made the effort to create a home port. For fans of Sega's hardware swan song, it was a bittersweet release.

G.Rev was a small development team when it was founded in 2000, and it had one strong mission statement: make great shoot-'em-ups. At Taito, its staff had created games including *G Darius* and *RayStorm*, and by 2006 G.Rev had built quite a track record of its own. The company provided programming and graphics for Treasure on *Ikaruga* and *Gradius V*, and it had successfully produced its first original shoot-'em-up *Border Down*. The company was about ready to move on to pastures new, having made the decision to convert *Senko No Ronde* to Xbox 360 rather than Dreamcast, but decided to port its World War II-themed helicopter shoot-'em-up *Under Defeat* as a parting gesture.

Having spent most of its existence working on Dreamcast-based hardware, G.Rev knew how to take advantage of the ageing technology. Detail in the enemy models and textures were best shown off with low-altitude flight, and the game hits a solid 60 frames per second except under the extreme duress of bomb triggers and post-boss explosions.

However, what really set the game apart was its explosions. They were nothing short of pornography for pyromaniacs – the flame and smoke effects were *that* good. Individual fires start their own smoke trails, twisting around each other as aircraft go crashing to the ground. There's even a physics engine that exists purely for cosmetic purposes, which is principally shown off by the explosions.

Visually, G.Rev delivered a game that wouldn't have embarrassed the PS2, Xbox or GameCube, and ported to HD systems nicely. The tragedy of that is that it shows how, with good developers, the Dreamcast was perfectly capable of hanging with the competition. If only fate had afforded it the opportunity. *



HOW IT PUSHED THE LIMITS. . .



Particle Power

These sorts of particle effects were a staple of the generation, but infrequently used on Sega's short-lived console. *Under Defeat*'s excellent explosions make great use of particles, to the point that it's hard to believe it's a Dreamcast game.



Tremendous Textures

The beautiful environments in *Under Defeat* often owe their detail to outstanding texture mapping rather than high polygon counts. This shrewd artistic approach maximises the benefit of the Dreamcast's relatively large video RAM.



Remarkable Reflections

One of the most impressive graphical effects isn't shown until the final stage, in which you fight over a river. The entire fight is reflected on the surface below, with no compromises – flames, smoke trails and all other elements are visible.



Phenomenal Physics

What makes *Under Defeat*'s big bangs so satisfying is their effect on the environment around them. Watch smoke trails distorted by the impact of nearby explosions, and see the trees bent by the power of both wind and warfare.

The Making of

Arx Fatalis



In The Know

» **PUBLISHER:** JoWooD Productions
» **DEVELOPER:** Arkane Studios
» **RELEASED:** 2002
» **PLATFORM:** PC, Xbox
» **GENRE:** RPG

ROBERT ZAK IS YOUR GUIDE AS RAPHAEL COLANTONIO AND CHRISTOPHE CARRIER RETURN TO ARKANE'S DEBUT 'IMMERSIVE SIM'

A*rx Fatalis* was Arkane Studios' maiden game; a passion project at a time when the industry had little time for such sentimental ventures. The game led to both the creation of the studio and its near-collapse, while also setting Arkane on a creative path that would eventually lead to *Dishonored* and *Prey*.

At the time of its release in 2002, *Arx Fatalis* was widely referred to as a first-person RPG, though today the buzzphrase 'immersive sim' is more apt. It's set in a world where humans have been forced to migrate underground after the sun fizzles out on the surface. Building medieval settlements amidst these warrens and caves, humanity learned to coexist – not always harmoniously – with goblins and trolls, while the deeper levels held all manner of fantasy horrors.

It was as open a world as you could've expected within the confines of a subterranean tunnel network. You could take on side-quests, and were free to procure money and items in whatever ways you saw fit – be it bartering or thievery. There were plenty of playful systems too; you could buy shares in a mine, for example, then sell them on for more after resolving a miners' strike, or you could break the game by robbing a shop of its powerful rune and weapons.

If that description conjures wistful memories of *Ultima Underworld*, then your nostalgia compass is well tuned, because those games



» [PC] In the city of Arx, you can chat with locals, raid shops, and kill chickens; the Holy Trinity of immersion.

are what inspired Raphael Colantonio to begin work on *Arx Fatalis*. "We've all had that moment when something changes from being a game to an 'experience'," he says. "Those two games touched me forever." Raphael had the idea for *Arx Fatalis* while working as an assistant producer for EA in 1993 (the year *Ultima Underworld II* came out). "I had this dream of being able to sell *Arx* inside EA. It was a pretty clear vision that I'd gestate for about two years."

But during this gestation period, Raphael saw EA's priorities veering away from his beloved, complex RPGs like *Ultima* towards the bigger business of sports franchises and console games. It was 1995, after all, and the cutting-edge PlayStation was redefining the market, wooing publishers with its popularity and accessible development tools. "Super-hardcore RPGs were not where it was at anymore," he adds.

Instead of adapting to the new landscape, Raphael doubled down on his vision. He left EA in 1997, and after a stint at Infogrames, founded Arkane Studios in 1999. By this point, however, it had been six years since the release of *Ultima Underworld II*, and its particular breed of RPG was looking (it has to be said) arcane by this time.

Finding a publisher would prove arduous, but Raphael was spurred on by support from his personal heroes. At E3 in 2000, he showed the game to *Ultima Underworld* designers Doug

» [PC]You can see the DNA of Arkane's later releases, such as Dishonored. in *Arx Fatalis*.



» [PC] There's enough novelty in *Arx Fatalis* that it's allowed a few cookie-cutter giant spiders.

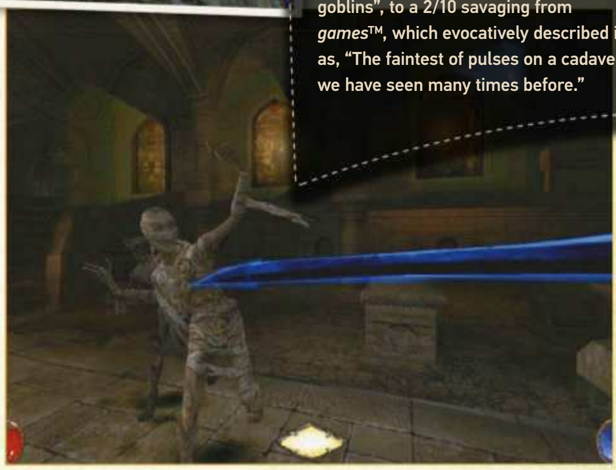


AN UNEXPECTED JOURNEY TO XBOX

Despite Raphael Colantonio's strong aversion to all things involving TV screens and gamepads back then, *Arx Fatalis* made the jump over to Xbox in November 2002.

The port, by French studio Dreamcatcher Interactive, didn't quite do justice to the PC version however, with murkier textures, and a menu navigation system that felt cumbersome on a gamepad. That tactile spellcasting system, meanwhile, was reassigned to button combos on the directional pad, which lacked the wand-waving weirdness of doing it with a mouse.

The reviews from the gaming press at the time were a comically mixed bunch, ranging from high praise from TeamXbox for its "gruesome environments and humour of the goblins", to a 2/10 savaging from *games*TM, which evocatively described it as, "The faintest of pulses on a cadaver we have seen many times before."



» [Xbox] The port to Microsoft's first console isn't bad, although it's not as intuitive to play as the PC original.

"SUPER-HARDCORE RPGS WERE NOT WHERE IT WAS AT ANYMORE"

RAPHAEL COLANTONIO

Church and Paul Neurath, who saw the potential for it to become not just a spiritual successor to *Ultima Underworld*, but a literal one. Paul arranged a meeting where he would to pitch for *Arx Fatalis* to become *Ultima Underworld III*.

He had the meeting that summer, during which EA insisted on wholesale changes such as toning down on the RPG elements and prettying up the environments. Raphael wasn't willing to make such compromises. "Even though I'd seen EA from the inside and knew it was unlikely to work out, I thought if there was a third party like Paul and the Looking Glass guys behind it, then EA would definitely go for it," he laughs. "That was naive, in hindsight."

The EA deal never materialised, *Arx Fatalis* was without a publisher, and things were starting to look desperate. "We were weeks away from reporting to the French government that we had to close the company", Raphael tells us. "It had been a year since we started looking for a deal, and at some point you need to just move on."

Discrepancy between an Arkane game's commercial success and critical reception would become a running theme throughout the studio's work (though never as dramatically as with *Arx Fatalis*). Their appeal lies in imaginative mechanics and playful systems-based worlds where players are encouraged to experiment, and even try to break the game – from using the GLOO Cannon to sequence-break *Prey* to using Blink to speedrun *Dishonored* in half an hour.

You can find the roots of this off-the-leash playfulness in *Arx Fatalis*, skipping large chunks of the game using a levitation spell, for instance, or paralysing guards to get into areas you shouldn't. The problem is that these qualities only manifest themselves when deep into an Arkane game, and are not all that easy to market.

It's fitting then, that *Arx Fatalis* was eventually saved by people with ties to games journalism – passionate gamers rather than calculating businessmen. While Arkane searched for a publisher, it sent the game to various magazines and websites in the faint hope that it would create a buzz. "We were so desperate and worried, that we thought maybe we'd contact the press or something. Maybe people would at least want to talk about our game?"

The plan worked. A writer praised *Arx Fatalis* on a Looking Glass Studios fansite called TTLG (which still exists). The article was spotted



» Raphael Colantonio's love of *Ultima* games led to *Arx Fatalis*.

"I WAS TOLD THAT OUR MARKETING BUDGET WAS LITERALLY ZERO"

Raphael Colantonio

DEVELOPER HIGHLIGHTS

DARK MESSIAH OF MIGHT AND MAGIC
SYSTEM: PC
YEAR: 2006

DISHONORED
SYSTEM: VARIOUS
YEAR: 2012

PREY (PICTURED)
SYSTEM: VARIOUS
YEAR: 2017





by former games journalist and *Ultima Underworld* fan, Frank Heukemes, who was now in charge of acquisitions at a small publisher called FishTank. "He was totally on board with the risk of doing a game that maybe the market and publishers didn't want, but he wanted," says Raphael. Within two weeks of their meeting, in October 2000, FishTank had signed up *Arx Fatalis*.

But the game wasn't quite safe. In 2001, FishTank went under, and sold all its assets (including an obscure fantasy game called *The Witcher*) to an Austrian publisher called JoWooD. "They were barely in better shape, but thought of this as an opportunity that could save them," says Raphael. "After, I was told that our marketing budget was literally 'zero', but that didn't matter. These guys were putting our game in a box. Imagine that! They knew people who had trucks that would put it in stores. This was magic to us."

Meanwhile, down on the ground *Arx Fatalis*' development was without unwanted surprises, although there was a sense that the team (initially four people, then nine) was in deep, uncharted waters. "We were this young team that had never directed anything, and we're in France, far from everybody and making a super-hardcore game that nobody wants," says Raphael. "And we started from scratch in our own engine. How stupid is that?

Back then, developers weren't spoiled for choice with engines. *Quake*'s engine was an option, as was Renderware, used for games ranging from *Rayman 2* to *GTA III*, but the Arkane team was unanimously opposed to it. "Renderware was expensive and very console-oriented," says Raphael. "We were hardcore PC



» [PC] *Arx Fatalis* wasn't conventionally beautiful, but environments were rich and deceptively varied.

types, thinking along the lines of 'No! Not the consoles. They're going to kill us with their small amounts of money and stupid games.'"

A custom engine gave Arkane the flexibility it wanted, but it was hard work, as there was precious little information available on the fledgling internet about how to do it. Sound designer Christophe Carrier, however, recalls working on *Arx Fatalis* with fondness.

The homemade engine meant we could literally chuck things from the editor to the game in seconds, making room for experimentation," says Christophe. "If you needed to animate something, you didn't have to wait for an animator to do it; you did it, and if nobody said it was crap then it would stay in the game."

Christophe ended up designing a few areas in *Arx Fatalis*, and even added a segment where gargoyle statues turned their heads to follow you. "This feature was in one room, nowhere else," Christophe reminisces. "It was this kind of freedom that I loved. It's not totally impossible today, but it's rare to have that kind of agility."

Christophe's main focus was still sound design, however, – one of the more striking elements of *Arx Fatalis*. The caves reverberate with a moody drone, supplemented by a hypnotic soundtrack that wouldn't be out of place in a David Lynch movie. "We worked with D-Sonic, the same guys who made the *Thief* and *BioShock* ambiences," says Raphael. "I was amazed by what they had done in *Thief* – thick and deep, with no music.





» [PC] Despite not being too fond of it at the time, Raphael now looks back at *Arx Fatalis* with pride.

ARX LIBERTATIS

Being a game of considerable complexity and ambition, *Arx Fatalis* launched with more than its fair share of bugs. Over the next several years, as PC hardware and operating systems progressed, the game became completely unplayable on modern machines, even though it became available to buy on GOG.com and Steam.

Luckily, Arkane eventually got back the rights to *Arx Fatalis*, and in 2011 released a final patch and open-sourced the engine. Soon after, a community of modders joined together to make Arx Libertatis. The comprehensive patch updates the game for modern machines, with bug fixes, gameplay improvements, and unlocked resolutions and framerates. It even adds small flourishes like previously unused spell effects from the game files.

Thanks to Arx Libertatis, *Arx Fatalis* is perfectly playable today. A major update hasn't been released for a couple of years now, but it continues to get new development builds to this day.





» [PC] The gesture-based spellcasting system was tough, but immensely satisfying once you grasped it.

» [PC] Despite being set on a faraway planet, *Arx Fatalis*' visual style is rooted in traditional fantasy.

Thief was clearly a departure from what was done in sound design, and we wanted that in *Arx*."

Then there's that bold, bizarre spellcasting system, whereby you use your mouse to draw magical coruscating symbols in the air in front of you. This, Raphael reveals, was inspired by the Palm Pilot. "In order to type a letter on one of these, you'd draw a letter on the screen using a stylus, but every letter had to be done in one stroke, so 'A' wouldn't have the horizontal line."

Obsessed with immersion, Raphael would've gone further with the spell system had it been feasible. "If we'd had good voice recognition technology, I would've come up with a way to truly do an incantation for a spell as well," he says. "I was looking at ways of making spells feel like a process, something that you do and feel."

Unfortunately, if not unexpectedly, *Arx Fatalis* did not sell well when it launched in June 2002, even though reviews were largely positive. Broadly fitting the bill for a 'western RPG', it was lumped in for comparison with *Morrowind* and *Neverwinter Nights*, against which it couldn't compete. "*Neverwinter* and *Morrowind* were value propositions – 'If you buy our game, you'll be in our world for ten years with an infinity of content, dialogue, choices," says Raphael. "It sounds more appealing than 'Hey, you're stuck in an underworld where there's no more than $10km^2$ to visit."

Arx Fatalis was a game out of time, arriving when RPGs were increasingly defined by dialogue choices and dynamic open worlds rather than these ancient underworlds. Crucially however, it brought Arkane to the attention of all the right people in the industry. Valve's Marc Laidlaw praised the game, and encouraged Raphael to use the Source engine for *Arx Fatalis 2*, which became *Dark Messiah Of Might And Magic*.

Deus Ex designers Warren Spector and Harvey Smith also took note, and the latter eventually joined Arkane years later to make *Dishonored*. Thanks to *Arx Fatalis*, Raphael established himself as a leading member of the immersive-sim rat pack; a purveyor of highly interactive, systems-based worlds and playful, ambitious mechanics.

It took a long time for Raphael to get over his bittersweet relationship with his first game, but from Arkane's influential position today, he can now look back with pride. "I think *Dishonored* helped us get over those near-successes we had," he concludes. "It's allowed me to appreciate *Arx Fatalis* as an important step to success, as opposed to a failure." *

WULVERBLADE

History is bloody, especially if you live it through Michael Heald's beat-'em-up. Join Martin Hinson as he gears up to defend the land

Michael Heald spent most of his youth playing videogames, particularly games that involved beating people up. You could suggest this might have had a negative influence, but a healthier obsession was born: Michael wanted to make his own videogames.

"I grew up during the dawn of gaming and got hooked in the Commodore 64 days. From that moment, games became my biggest passion," he tells us. "I've been obsessed with side-scrolling beat-'em-ups since day dot."

Final Fight had huge influence within the genre back in 1989, and it certainly left its mark on Michael. "I broke down all my favourite games to the individual frame timing of each animation so that I could find what worked best and use that as a foundation for my own game."

Michael's didn't just want to mirror his favourite games for his beat-'em-up, however. "We wanted to fuse together everything that made the great games great and sprinkle in more," he explains. "So beyond the basic moves that we all know in beat-'em ups, *Wulverblade*, introduces a wealth of new mechanics to master. We have blocking, countering, combos, rolls, dodges, heavy weapons, air combos and rage!"

One aspect of *Wulverblade* that isn't rooted in retro game design is the outstanding audio that was supplied by Verbal Vigilante. "They came out with me to do 'on location' sound recordings," Michael enthuses. "As you go through the game you'll hear things like trickling streams that are live recordings from the actual locations."

Whilst the formation of *Wulverblade* had a clearly defined background of influences, the path to its creation was a long and gruelling one. "By the time I was at college my focus was my art. Once qualified it was a good decade doing design and illustration commercially before I finally broke into the games industry and then almost another decade before I got to dig into *Wulverblade*," Michael remembers.

Once Michael had his foot in the door, though, the path was clear. "I wanted to work with passionate games developers and the best



» [PS4] The ferocity of battle is expertly captured in *Wulverblade*'s stunning cutscenes.



» [PS4] Brennus is always in control of the battlefield – even when he's flanked by enemies.



» [PS4] Guinevere is channelling the spirit of Boudica when dispatching the Romans.



BRENNUS

■ The third sibling, Brennus is the battering ram of the trio – slow, but brutal. Despite this power he is a gentle giant and a deeply religious Pagan – he spends a lot of his time praising one Pagan god or another. Grappling is his forte, so don't be afraid to face foes head-on.

CARADOC

■ He is the leading man and the most balanced fighter. Caradoc is ferocious, seemingly wanting to take on the Romans single-handed. Upon the mysterious disappearance of his father, he became the leader of his family due to his level-headed nature and fearless attitude.

GUINEVERE

■ Sister Guinevere is highly agile; fluid in aerial attacks and sports her own special dodge move, but has weaker overall power. She is extremely hot-headed and even more ferocious than Caradoc. Often held back when enemies are near, her design embodies the spirit of Queen Boudica.





IN THE KNOW

» **PUBLISHER:** DARKWIND MEDIA
» **DEVELOPER:** FULLY ILLUSTRATED
» **RELEASED:** 2017
» **PLATFORM:** SWITCH, VARIOUS
» **GENRE:** BEAT-'EM-UP

route to that source was the indie industry," he laughs. "I got into the indie scene before the boom and just as mobile was about to explode. Before I knew it, I had given up my full-time design job and launched Fully Illustrated as a business."

Wulverblade is the first project Michael has designed by himself completely from the beginning. "*Wulverblade* started out as just a concept on paper for the first couple of years of the gruelling six-year development period," he grins. "It began as me doodling and laying out the game in its basic form." Michael soon realised he had to find a way to convert his ideas into actual content. "I spoke to Darkwind Media and they agreed that this was something they wanted to be part of."

Darkwind took the technical reigns, leaving Michael free to do what he does best, lead from a creative perspective. "I couldn't believe my luck as I could never afford to hire a team as experienced as them, and by sharing my game 50/50 I was now partnering up with a powerhouse of development."

Michael handed the majority of the core animation work over to the Denis Davidov and the cutscene art to Jon Sommariva (known for his work on the *Turtles* comics). "For me to hand over creative tasks to others was a struggle as this was my baby," Michael admits, "but both Denis and Jon are amazing and their work really was the icing on the cake."

The rest is history… speaking of which, that's a particularly important facet to *Wulverblade* as it is deeply rooted in historical fact. "One of my other big passions is ancient British history. It's an era that is filled with some of the most amazing tales. Stone circles, Roman forts, you name it, these locations blow my mind when I start to think about what they would have been like at the time. Taking the feel of *Golden*

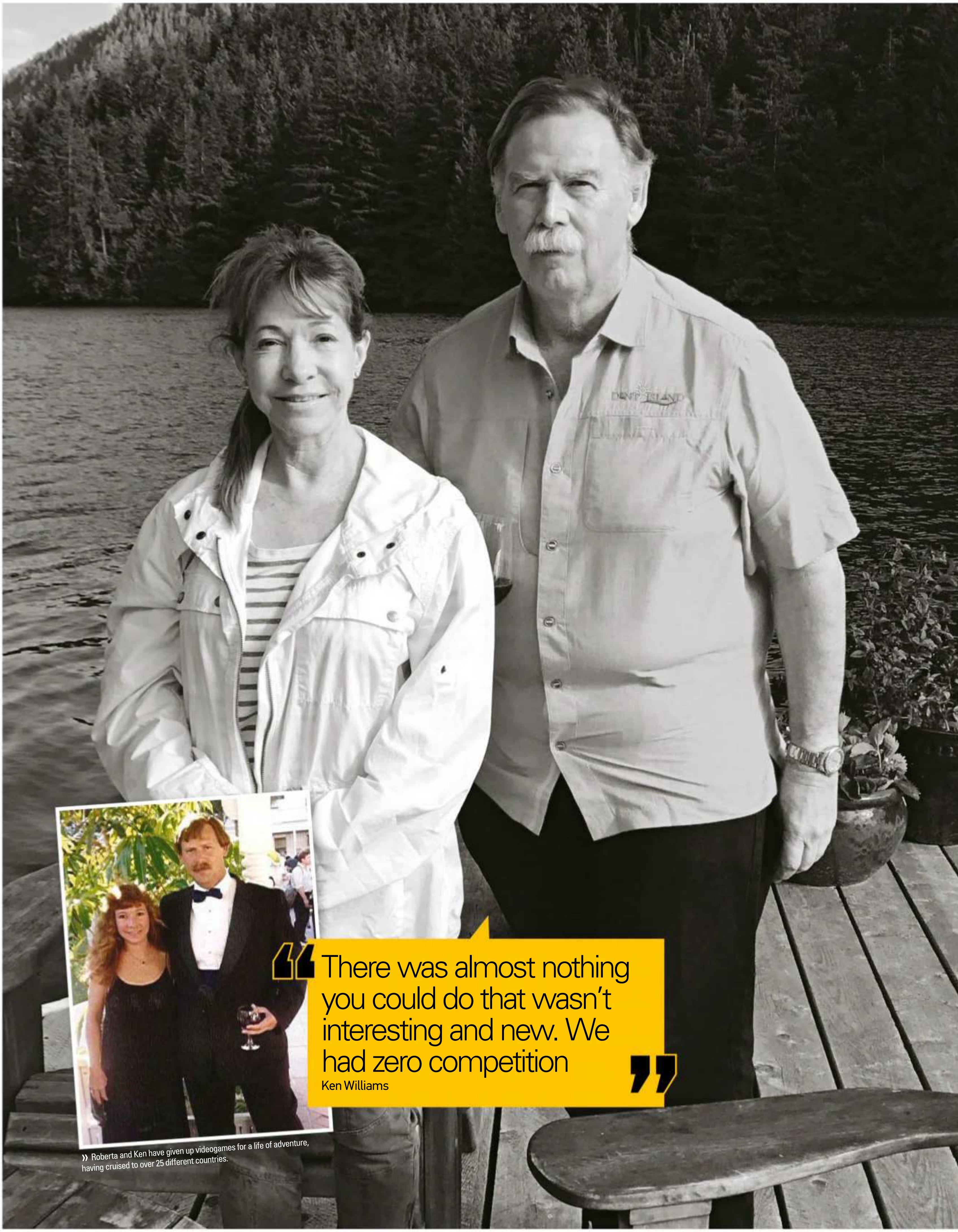


» [PS4] Caradoc delivers the final, spectacular blow to a dangerous enemy.

Axe and smothering it in the rich historical setting of Roman Britain was just a perfect fit for me."

Six years after development started, *Wulverblade* was released first on Nintendo Switch. "The Switch was announced and the world was going bonkers for it. After meeting at PAX East we built a close relationship with Nintendo and they were really interested in getting the game as a timed exclusive."

Now available on other systems, *Wulverblade* proves that history can be fun. And very, very bloody… *



» Roberta and Ken have given up videogames for a life of adventure, having cruised to over 25 different countries.

> There was almost nothing you could do that wasn't interesting and new. We had zero competition
>
> Ken Williams

In the chair with...

KEN WILLIAMS

Ken Williams and his wife Roberta, founded Sierra Entertainment, the company responsible for some of the most significant creative and technological developments in gaming history. Hareth Al Bustani talks with Ken about the pioneering years

Born in 1954, Ken Williams went to college aged just 16 to study physics. Five days after his 18th birthday, he married his high school sweetheart Roberta before dropping out of college to enrol in programming school, and found work in the burgeoning mainframe computer industry. Ken took all the work he could get, before moving with Roberta to rural Yosemite in 1979, where they started developing games at home. Their company, On-Line Systems, eventually grew into Sierra Entertainment, a public company boasting 1,000 employees and one of the largest software developers in the world. Though Sierra was sold in 1996, Ken continued to work in gaming and technology, until retiring to travel the world with Roberta on their Nordhavn 68 yacht.

What first got you into computer engineering, and what was it like programming mainframes in the early days?
When I started in computers, computers were just getting started! My first job as a programmer literally involved plugging in wires to program the computer. I then had another job programming keypunch machines, and another as a computer operator hanging tapes. I had a tendency in those days to inflate my experience and change jobs as soon as I could make an extra dollar a year. It worked for me. I was able to graduate from the bottom of the heap as a software engineer to a much sought-after specialist in mainframe computers – time-sharing and terminals for IBM mainframes – in a very short span of time.

When did you and Roberta first meet?
We met in high school. I was only 16 at the time. We were double-dating with another couple, except that I was with another girl and Roberta was with a friend of mine. Months later, when my friend had broken up with her, I talked him out of her phone number. We were married only five days after I turned 18. My parents thought our marriage wouldn't last. But it did!

When did you decide to start your own company, On-Line Systems, and develop your first game, *Mystery House*?
Roberta and I were living in Burbank, California, during the Seventies. I was working on a contract basis for a lot of companies in the Los Angeles area, programming mainframe computers. Around 1979, Apple released the Apple II and Radio Shack the TRS-80, the first of the personal computers. We wanted to find a way to support ourselves, while living 'in the woods'. We had this idea of taking our kids and moving to a log cabin in



» [Apple II] *Mystery House* was the debut game for Ken and Roberta Williams, and it proved to be a monumental success for the couple.

the mountains. With 20/20 hindsight, it was a bad idea for a lot of reasons, but it is why Sierra was started.

What prompted you to move out there, and what was it like working on those early games?
Roberta and I had a naive notion that living in the woods would be good for our children. We didn't start Sierra to 'get rich'. I certainly wanted that, but our dominant thought at the time was to get out of Los Angeles and raise our kids in a safe and wholesome environment. It didn't quite work out that way. Where we moved was a small town, but it turned into a bad place to raise the kids for a variety of reasons. If I had it to do over again, I'd do some things differently. The biggest issues were access to talent – it was a hard place to convince good engineers to move to – and it became a company town. We had 500 employees in a town of 5,000 people. Our kids took a lot of abuse at school. You'd think it would work the other way around, but it didn't.

SELECTED TIMELINE

GAMES

- **MYSTERY HOUSE** (1980) APPLE II
- **HI-RES ADVENTURE #2: THE WIZARD AND THE PRINCESS** (1980) APPLE II
- **HI-RES ADVENTURE #0: MISSION ASTEROID** (1981) APPLE II, ATARI 8-BIT, COMMODORE 64
- **HI-RES ADVENTURE #5: TIME ZONE** (1981) APPLE II
- **HI-RES ADVENTURE #4: ULYSSES AND THE GOLDEN FLEECE** (1981) VARIOUS
- **THRESHOLD** (1981) APPLE II, ATARI 400/800
- **HI-RES ADVENTURE #3: CRANSTON MANOR** (1981) APPLE II
- **MOUSKATTACK** (1982) APPLE II, ATARI 8-BIT
- **THE DARK CRYSTAL** (1983) APPLE II, ATARI 8-BIT
- **HI-RES ADVENTURE #6: THE DARK CRYSTAL** (1983) APPLE II, ATARI 8-BIT
- **KING'S QUEST** (1984) VARIOUS
- **KING'S QUEST II: ROMANCING THE THRONE** (1985) VARIOUS
- **SPACE QUEST I** (1986) VARIOUS
- **THE BLACK CAULDRON** (1986) VARIOUS
- **LEISURE SUIT LARRY IN THE LAND OF THE LOUNGE LIZARDS** (1987) APPLE II, PC
- **3-D HELICOPTER SIMULATOR** (1987) PC
- **POLICE QUEST: IN PURSUIT OF THE DEATH ANGEL** (1987) VARIOUS
- **KING'S QUEST IV: THE PERILS OF ROSELLA** (1988) VARIOUS
- **MANHUNTER: NEW YORK** (1988) VARIOUS
- **POLICE QUEST II: THE VENGEANCE** (1988) VARIOUS
- **HERO'S QUEST: SO YOU WANT TO BE A HERO** (1989) VARIOUS
- **CODENAME: ICEMAN** (1989) VARIOUS
- **KING'S QUEST V: ABSENCE MAKES THE HEART GO YONDER** (1990) PC, NES
- **CONQUESTS OF CAMELOT: THE SEARCH FOR THE GRAIL** (1990) VARIOUS
- **QUEST FOR GLORY II: TRIAL BY FIRE** (1990) PC, AMIGA
- **SPACE QUEST IV: ROGER WILCO AND THE TIME RIPPERS** (1991) VARIOUS
- **CASTLE OF DR. BRAIN** (1991) VARIOUS
- **SPACE QUEST IV: ROGER WILCO AND THE TIME RIPPERS** (1991) VARIOUS
- **ECOQUEST: THE SEARCH FOR CETUS** (1991) PC
- **POLICE QUEST 3: THE KINDRED** (1991) PC, AMIGA
- **THE DAGGER OF AMON RA** (1992) PC
- **FREDDY PHARKAS: FRONTIER PHARMACIST** (1993) PC, MACINTOSH
- **GABRIEL KNIGHT: SINS OF THE FATHERS** (1993) PC
- **PHANTASMAGORIA** (1995) PC
- **THE REALM ONLINE** (1996) PC
- **HALF-LIFE** (1998) PC

What were the most revolutionary aspects of *Mystery House*?
The biggest innovation in *Mystery House* was everything! The industry was new. There was almost nothing you could do that wasn't interesting and new. We had zero competition. The biggest technical challenge was that at the time there were no development tools. There were no graphic editors, no animation software, no subroutine packages, no compilers – everything we did was a technical challenge. We had to create everything ourselves. We had to develop animation editors, paint programs, even our own compiler and computer language.

Did the 10,000-plus orders for *Mystery House* take you by surprise?
I never would have dreamed of the success of *Mystery House*. I only made the game to please Roberta. Fulfilling the orders was overwhelming. And, answering all the calls! We quickly hired people to help. It was an amazing time.

Were you surprised that a game developed in just three months, by two people, was so commercially successful?
Yes, but the lack of competitors was a definite advantage! There was so little product being produced that retailers wanted our product. Dealers were hungry for something to sell.

How did you make it through the videogame crash of 1983?
It was the deal with IBM and the cash they provided, or we would have been dead. With that said, we also hadn't put all our eggs in the videogame basket. The computer game market softened but never collapsed. We kept going by focusing on computer games.

Was the IBM commission a major milestone moment in your growth?
Absolutely. IBM brought us money, free advertising and credibility. But, ultimately, it was Radio Shack who put us on the map. The Tandy 1000 was a hit and our games were perfect for it. We made a fortune selling games on the Tandy 1000 and at Radio Shack stores.



» [PC] *King's Quest V: Absence Makes the Heart Go Yonder!* sold a record-breaking 500,000 copies, its sales were unrivalled for three years.

How did the company grow, through the *Hi-Res Adventures* phase, into 1983's 12th largest software company, worth $12.5 million?
There's a saying that 'a rising tide raises all ships'. We were in the right place at the right time. Computers were taking off. As I look back, I see now that we were not particularly brilliant or creative. We were just kids making games and having fun – at a time when the home computer industry was exploding. It helped that I had a strong entrepreneurial sense and wanted to capture as much of the market as I could.

How big of a shift was the process behind *King's Quest*? Did this feel like a natural progression?
As the market grew and became more competitive, the budget for each game, and the size of the teams, had to grow. Plus, one of my themes at the time was that Sierra needed to break ground with every game we produced. We constantly had to do something cool that no one had seen before. The technology was changing monthly. Computers were getting faster and gaining capabilities, like higher resolution graphics and sound. We constantly had to push the state of the art.

In your view, what was the biggest impact the *King's Quest* series had on the gaming industry?
Roberta, my wife and *King's Quest*'s designer, understood better than anyone on our staff how important it was to shake things up with each release. With each game, she wanted to pioneer new technology or new UIs. People bought new games, not just to see what happened with the characters, but to see what was new. Roberta's *King's Quest* always set the standard for user interface and technology, which would then find its way into our other products.



» Sierra had its own in-house magazine.





FIVE TO PLAY Magic from Ken



MYSTERY HOUSE (1980)

■ This was the first adventure game, designed by Roberta Williams and coded by Ken. Using commands, the player was tasked with solving a murder mystery, set in a Victorian mansion. The couple produced the game within a month, and it sold 10,000 copies.



KING'S QUEST I: QUEST FOR THE CROWN (1984)

■ This title was the first built on Sierra's Adventure Game Interpreter engine. The game was designed by Roberta and features unique pseudo-3D visuals, which let players interact with the game's different environments.



LEISURE SUIT LARRY IN THE LAND OF THE LOUNGE LIZARDS (1987)

■ The *Leisure Suit Larry* series became infamous for its raunchy humour and cheeky wit. It follows the sleazy Larry Laffer's attempts to get lucky, marking Ken's eagerness to take risks with his titles.



QUEST FOR GLORY II: TRIAL BY FIRE (1990)

■ This text-based game was a unique adventure/role-playing hybrid. A choice of classes gave players different options for solving problems, while major plot points were tied to the game's clock. The game also utilised procedural streets to create enormous cities.



PHANTASMAGORIA (1995)

■ This interactive movie game was stretched over seven CD-ROMs; featuring 25 actors, 1,000 backgrounds and a production team of 200. Despite drawing controversy for its depiction of violence, it was an enormous hit – earning $12 million in its opening weekend alone.

What was Sierra's philosophy towards adventure games, with its other franchises, like *Space Quest* and *Police Quest*?
I always used a 'bookstore' theme for our product development strategy. I would tell our developers to go to a bookstore and look for storytelling categories that seem large – lots of revenue for books – but weren't being serviced by the computer game industry. True crime? Comedy? Romance? Fantasy? I wanted to have products to target all the different demographics that were proven in other industries.

> "I liked looking for people who seemed to be passionate about something"
> Ken Williams



» Ken and Roberta posing for a publicity photo early on in Sierra On-Line's life.

What was the budgeting, design and production process like for your larger projects?
Our process revolved around some formulas I had. For example, I always wanted to believe that we could get initial orders for a game that represented five times the development cost in revenue. So, if we thought we would sell 50,000 copies at $25 wholesale – $1.25 million in revenue – then the development budget needed to be under $250,000. If that math didn't work, the project didn't get funded. We had a brand management organisation, which was charged with studying the market and trying to estimate the demand for new products. Our designers would pitch the brand management organisation their ideas and explain why they thought there was a big market. The bigger budgets went to the developers with a proven track record and with name recognition.

Who did you consider your greatest competitors through the mid to late Eighties?
Brøderbund. LucasArts. Even Microsoft. Electronic Arts. By the mid to late Eighties, there were lots of companies all trying to catch up with us.

What were your thoughts on LucasArts as a competitor to Sierra?
Lucas put out some awesome games! We felt like they were chasing us and worried about them. They had some amazing titles.

Were there any LucasArts titles that stood out in particular?
All LucasArts products were awesome. I definitely worried about them. I remember *Loom*, and that they integrated music clues into the game and I thought that was very innovative.

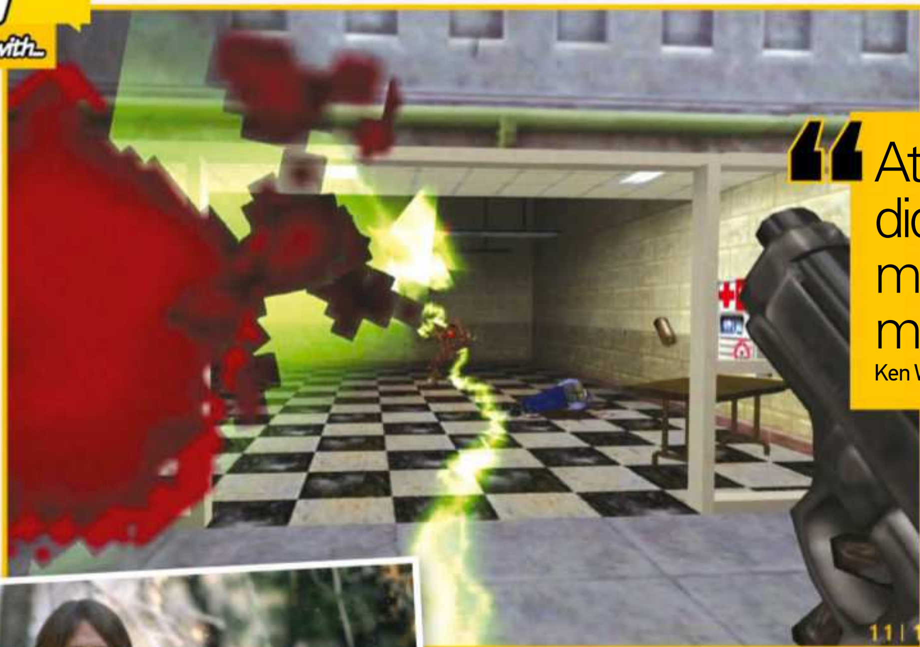
Was it difficult keeping up with technology, or were new innovations a breath of fresh air?
Technology was our friend. We were very good with it and had a good code base to build on. We prided ourselves on being able to tackle any challenge and make impossible things possible. The rapid change in the market is what allowed us to stay ahead.

What was so special about the AGI and SCI engines; what made them so unique?
Both languages were built from the ground up to be portable between platforms – operating systems and hardware – and specifically for building games; built-in animation and sound engines. The big leap from AGI to SCI was that SCI was an object-oriented language, something that was almost unheard of in those days. Part of Sierra's secret to success was that our tools allowed us to move faster than our competitors.

How did *Leisure Suit Larry* fit into the company's range of titles?
LSL grew out of my vision that we were in the 'entertainment business', not the 'computer game business'. I thought it was obvious looking at television and movies that there was a large niche of people who wanted risqué humour. Larry seemed cutting edge only when viewed as a computer game.

What was your attitude towards getting the most out of your talent, and what was your vetting process?
I liked looking for people who seemed to be passionate about something. My feeling was that passion couldn't be faked. So, I would define a target market and then look for someone who seemed passionate about that category. Jane Jensen was someone who lived and breathed *Gabriel Knight*. She had the story inside and was excited about telling that story. For her it wasn't a job, it was her life. My goal was to find people like her and give them full creative control and a team to realise their vision. And then get out of the way.

What was your working relationship with Roberta like during the golden years?
Working with family is always difficult. Throughout ▶



» [PC] Ken approved the publishing of Valve's *Half-Life*, despite reservations over the violent first-person shooter genre.

> "At the time we didn't realise how much we were making history"
> Ken Williams



» Ken, pictured with Roberta, before the iconic moustache took over his face.

the company's history there were allegations that Roberta received favourable treatment. In actuality, she did get special treatment, but it was because her games were great and sold well. It was always a circular argument. Did her games sell well because she got the best engineers, artists and marketing, or, did they sell well because she was a good designer? It depended on who you asked. I never had a doubt. The games sold because she designed great games.

What did you think of the early internet and did you experiment much with it?
You'll note that our name was 'Sierra On-Line'. I was always fascinated by anything 'online' and our TSN [The Sierra Network] games was my favourite project ever.

What was the philosophy behind developing something so groundbreaking?
I consider TSN the greatest thing I ever did. We were flying flight simulators, multiplayer, years before the internet was invented. It was incredible! If we had stuck with TSN, it would have easily been a huge company.

What do you think TSN could have been – what was your original ambition for it?
TSN was based on a simple mission statement: 'What if I could come up with something where my grandma could pick up a game of bridge 24 hours a day, seven days a week?" Once I had that idea, it of grew from there. The original name for TSN was 'Constant Companion'. Later we expanded it to target everyone and be a massively multiplayer online community.

What was your favourite feature of TSN?
It was the interaction with other people, and the idea of role-playing as a character. If you wanted to be an elf, you could be an elf. There was total anonymity. You could be someone else and that was all people knew about you. Now, people do it every day.

What do you consider some of the key moments in the rise of TSN?
Moments that stand out are when we first did a test with 75 seniors, with an average age of 80-plus, none of whom had ever used a computer. We had only simple card games going and the seniors fell in love immediately. Our servers kept overheating and yet the seniors never complained. They just kept dialling in and waiting. It was something radically new and fun! I remember our first gathering of TSN fans. Hundreds of people appeared, and we even had a wedding. Amazing! I remember our first flight simulator. It was the first time planes had ever fought in a virtual world. It was a blast, and we were doing it on 2400-baud modems. Unbelievable.

What do you think were the key factors in its downfall? Why didn't you stick with it?
TSN failed because we partnered it with AT&T. The Internet was just beginning and AT&T wanted TSN rewritten to support the Internet. The head of TSN had allegiance to AT&T and my perception was that he was hostile to Sierra. He was a corporate guy who wore a suit and tie and fit in better with the AT&T culture. I, in effect, lost control of TSN and it got bogged down in corporate bureaucracy. Instead of a fast moving, highly creative enterprise, it became a dinosaur run by a corporation. It died the day we partnered with AT&T.

Could you talk me through how your business grew into multiple entities through to the Nineties? How successful were your ventures into international markets?
We failed in Japan despite trying very hard. The problem was that Microsoft-based PCs weren't used for gaming in Japan. There were some Japanese clones that did well, but our games didn't run on them. In Europe, we did much better. I acquired a French company named Coktel Vision and let their CEO run Europe for us. He was a great guy and helped build Europe to become a huge percentage of our revenue.

Did you feel like you were waiting for the tech to catch up to your ideas, or did you find yourself trying to catch up to the technology?
Someone told me that to lead an industry, you need to really lead. I 100 per cent ignored what others did, and encouraged our team to not look at the competition. Instead, we spent a lot of time thinking about what new things emerging technologies would make possible, and how we could use our games to show off the new hardware. We were leaders, not followers.

What are your thoughts on the bold, revolutionary title, *Phantasmagoria*?
Phantasmagoria was awesome! Unfortunately, *Phantas II* was done by someone other than Roberta and bombed, destroying the whole category. If *Phantas II* had been a different product, there would probably be games like *Phantasmagoria* today that would be a billion dollar industry. There was something magical there. It was just never followed up on.

In the wake of titles like *Mortal Kombat*, groups in the Nineties campaigned against mature content in games. Did you face much backlash for your more mature titles?
We did have problems keeping *Phantasmagoria* and *Leisure Suit Larry* on shelves at places like Wal-Mart. The original *Softporn Adventures* was relaunched as *Leisure Suit Larry* partly to overcome this and soften the name. We also had problems in places like Germany, which was resistant to violent games and originally banned some of our flight simulators.

I had personal objections to violent games. The racy games never bothered me – we were the publishers for a Playboy line of products at one point – but I was never comfortable with games where you were shooting at representations of real people. I worried that kids were too young to draw a distinction between role-playing in a videogame and real life. That said, I



» [Amiga] *Castle of Dr. Brain* challenged players to escape a castle by solving various creative and complex puzzles.

had a responsibility to do my job for customers and shareholders and did publish *Half-Life* and other games, even though I never felt 100 per cent comfortable with the impact these games might have on society.

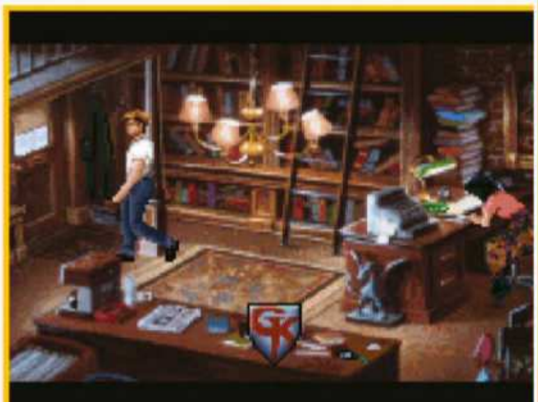
Could you briefly describe the sale of the company; why did you decide it was time to move on, and what did the buyers do wrong?
My responsibility as CEO was to Sierra's shareholders. We received an attractive offer to acquire the company. It was one in which both the payment was attractive and I believed the company would be stronger after the deal. Unfortunately, it didn't turn out that way. Promises made when Sierra was acquired weren't honoured and a management structure was put in place that I didn't believe in. It was better for me to leave than to stay and try to convince people that they were on the wrong path. *Half-Life* was published while I was there. Even that was screwed up though after the sale, by releasing the title to Valve – I don't know why that occurred.

If you had to sum up your company's legacy, how would you describe it?
We were lucky enough to be in the right place at the right time. At the time we didn't realise how much we were making history and what incredible things we were doing. It was a truly amazing experience. I wish I could go back in time and do it again!

What are your thoughts on the current resurgence of adventure games?
I haven't followed the industry. At times, I wish I were still in the industry because I haven't seen anything in a while that has really caught me by surprise. At Sierra that was always our goal – to show people something they'd never seen before.

Could you tell me about your current lifestyle?
Roberta always thinks of herself as Indiana Jones. She likes adventure. I prefer coding. Thus, she really controls our lives and forces me out of my comfort zone. We have circumnavigated our small boat and I've written several books on boating. Along the way we've cruised over 25 countries and had a lot of fun.

Whereabouts are you in the world right now?
We are in Cabo San Lucas, in Mexico. We have lived in Mexico about a third of the year for over 20 years. We love it out here!



» [PC] *Gabriel Knight: Sins of the Fathers* creator, Jane Jensen, "lived and breathed *Gabriel Knight*" according to Ken.

YOU ASK THE QUESTIONS

Where we point and click your queries over to Ken

MERMAN: How closely was Disney involved in the series of Sierra educational games featuring their characters?

There were creative wars throughout the development of the Disney products. Our people didn't think they understood interactivity and how to produce a good game, and their people didn't think we understood the characters. The biggest issue was that Disney's people really wanted to design the games, as did our people. My designers had to be forced to work with Disney, and the two sides never had great chemistry. Roberta did some of the games and only agreed to work on them if she could ignore the people at Disney. The games that resulted were great, and I'm proud of them, but they were a challenge for both sides.

KIWIMIKE: Are there any specific standout technological developments you're most proud of introducing into the computer and games industries?

Certainly TSN and the use of online in games is my biggest achievement. Massively multiplayer online games, five years before the internet hit the mainstream? How could I not be proud of that? Our team did amazing, and impossible, things and had fun doing it!

PARANOID MARVIN: Was there ever any thought of a movie adaptation of any of the games?

I always wanted it, but could never make it happen. Had I hung in there a few more years, I have no doubt it would have happened. For years, I tried to buy the rights to *Leisure Suit Larry* from Sierra's new owners. I thought it would make an awesome animated cartoon movie. When I saw the movie *Spaceballs*, I thought it was *Space Quest* converted to a movie. I'm sure someone on the creative team must have played *Space Quest*.

ANTSBULL: The AGI engine was groundbreaking within the industry and cost a lot to build – was it quite risky for Sierra at the time?

At the time, there were no tools of any sort for software development. AGI was not just programming language; it was also all of the animation and music tools that a developer needed to build a game. The goals for AGI were to reduce development cost through empowering the developers, artists and musicians to do their jobs efficiently, and to provide platform independence. I needed to create a level of abstraction between the game and the hardware, or operating system.

MERMAN: Are there any unfinished or unreleased titles that people don't know about?

Good question! There were demos that never saw the light of day. Al Lowe did a game, *Capital Punishment*, that was an action game about politics. It was hilarious but never released.

RETROMARTIN: What was behind the decision to make *Police Quest* as strictly procedural?

The early *Police Quest* games were designed by Jim Walls and I think he wanted the player to do everything exactly as a officer would do it. Later, we worked with Daryl Gates, former head of the LAPD. Chief Gates is considered the father of the SWAT team tactics. The team's goal for the product was to do a 'police simulator' not a 'police game'.

PARANOID MARVIN: You tended to die many times in Sierra adventures! Was this intentional?

[Grins] Yes! I am sure it was.

Dino Crisis 2

WHO LET THE RAPTORS OUT? WHO? WHO? WHO?



» PLAYSTATION » CAPCOM » 2000

I never really gelled with the PlayStation when it was first released, possibly because the free games that came with my system included *Fade To Black, Rayman, Porsche Challenge* and *Croc: Legend Of The Gobbos.* I purchased and loved titles like *Castlevania: Symphony Of The Night*, *Tekken 2* and *Gran Turismo*, but the console never clicked with me, so I quickly swapped it back for another Sega Saturn.

Recently, I've had a change of heart about Sony's console and have picked up ten games that I can play on my chipped PS2. They're a mixture of past loves (*Symphony Of The Night* and *Gran Turismo 2*) but mainly releases that I missed first time around. I'm now kicking myself that it's taken me so long to experience *Dino Crisis 2*.

What a game. I recently completed the original *Dino Crisis* on Dreamcast (the Japanese PlayStation copy I purchased was chip-protected) and while I enjoyed it, it didn't really wow me (those DDK code puzzles can do one). The sequel is a totally different beast altogether, clearly based on the arcade shooting-style gameplay that made *Resident Evil*'s Mercenaries mode so fun to play.

While it's fundamentally the same game as its predecessor in terms of looks and style, dinosaur attacks are far more prevalent and there's very little time to stop and rest. The puzzles have also been massively scaled back allowing you to simply concentrate on mowing down as many terrible lizards as possible. The ability to be able to run and gun makes a huge difference to how *Dino Crisis 2* plays, while the combo meter ensures that you do everything you can to make each shot count. You're always looking for opportunities to take down rogue dinos and the ability to use points to recharge your weapons ensure you never have to worry about running out of ammo.

It still utilises the same tank-like controls of the original *Dino Crisis* and the *Resident Evil* games of the time, but it feels streamlined enough that you're never stuck facing the wrong way. It's not only one of the most thrilling experiences I've had on my new PlayStation journey, but is proof that you shouldn't write off a sequel just because you didn't enjoy the previous game. ✱




VITALITY



>> This month we put the Super Nt through its paces, play the latest Kirby game and go for a spin with the remaster of Burnout Paradise



Super Nt

REVIEWED BY OUR VERY OWN NT

INFORMATION

» **RELEASED:** OUT NOW

» **PRICE:** $189.99

» **MANUFACTURER:** ANALOGUE INTERACTIVE

» [SNES] The Super Nt played everything we threw at it, including the Super FX2-based Yoshi's Island.



We've always been interested in Analogue Interactive's retro consoles. The company is clearly proud of its craft, and the likes of the CMVS (a Neo-Geo MVS-based console), Nt and Nt Mini (both NES consoles) were always attractive and feature-rich, but extraordinarily expensive. The Super Nt is arguably the company's first play at the mass market – it promises to play your SNES games better than anything else, and it comes in at less than $200.

Like previous Analogue machines, the Super Nt is an attractive device. The machine's plastic casing design resembles that of the Super Famicom and PAL SNES, but it's considerably smaller – slightly shorter and only a couple of centimetres wider than a PC Engine, in fact. The machine comes in four colour schemes – black, transparent, classic (American SNES) and SF (European/Japanese SNES). It's a weighty device and has a rubber base to prevent any slipping or pulling accidents. The case doesn't offer more than what is absolutely necessary – two control ports and a cartridge slot, a power switch and reset button, HDMI port and micro USB power port, and an SD card slot for firmware updates.

Unlike other SNES-compatible consoles out there, the Super Nt is powered by an FPGA (field-programmable gate array). This is a type of hardware emulation, rather than the software emulation used on devices such as the RetroN 5, the Super Retro-Cade and even Nintendo's very own Nintendo Classic Mini: SNES, or the system-on-a-chip solutions used in other machines. In theory, this provides the best of all worlds – a solution where the machine behaves exactly like the original hardware, offering zero lag and full compatibility, while outputting modern digital video with lots of lovely options for filters, scanlines and more.





8BITDO SF30 2.4GHZ CONTROL PAD

» Our Super Nt was tested with this wireless controller. The 8Bitdo wireless controller does not come bundled with the Super Nt, but is available via the Analogue Interactive store for $39.99, in colour schemes to match the four Super Nt system options. It replicates the feel and weight of the official SNES control pad, but with the modern benefits of wireless communication and a rechargeable battery, and should work with other SNES hardware as well.

We didn't initially find this device user-friendly, in part due to the limited documentation that comes packaged with the controllers. However, once they were up and running we found them to play perfectly well, retaining charge over a good period of time without any perceptible lag compared to an official wired controller.

✱ PICKS OF THE MONTH



DARRAN

Kirby: Star Allies

They never reinvent the wheel but *Kirby* games are typically good value. This one is no different, although it is quite easy.



NICK

Burnout Paradise: Remastered

Sometimes you just need to commit hideous acts of vehicular violence, and this month was clearly one of those times for me.



» [SNES] The Director's Cut of *Super Turrican* has never been released, making this a lovely addition.



» [SNES] *Super Turrican 2* is insanely expensive, so it's inclusion here is a welcome bonus.

Hats off to the Analogue team, because the FPGA approach seems to have paid off handsomely. The Super Nt handled everything we threw at it without a hitch – compared to a genuine NTSC SNES, nothing was out of place, off or amiss. Our tests included Super FX games, SA-1 chip games and even the recent Data East Classic Collection that trips up software emulation-based consoles. While we haven't been able to test everything, we can't fault Analogue's claims for compatibility.

If you're a SNES neophyte and don't have any games of your own yet, *Super Turrican: The Director's Cut* and *Super Turrican 2* have been licensed as built-in games ready for you to play. *Super Turrican: The Director's Cut* is a particularly notable inclusion as it has never been released before – this represents the original 6Mbit design, rather than the compromised four megabit *Super Turrican* that came out on cartridge. The inclusion of two high-quality games is a nice touch, especially given the prices they'd now fetch.

The picture quality here is unmatched. The option for 1080p output beats the 720p offered by the RetroN 5 and Retro Freak, and there's none of the softness seen on the system-on-a-chip clone consoles – the Super Nt offers razor-sharp. We were also pleased to see true 50Hz support. The sound is also excellent, output at 48KHz. Both audio and video can be tweaked in the system menu, accessed by pressing down and select during gameplay (a combination that can be changed), and is clean and simple to navigate. Two different types of scanlines are on offer, with a sliding intensity scale to adjust to your preference. A variety of visual filters are also on offer, as well as extensive scaling and aspect ratio options. You can also set your SNES region as necessary and even change how the console boots, directing it straight to the menu or cartridge with an optional intro sequence.

"THE FPGA APPROACH SEEMS TO HAVE PAID OFF HANDSOMELY"

The Super Nt is an excellent SNES-compatible console, then. However, there are features that it doesn't offer. Consoles based on software emulation often offer save states, and the SNES Classic Mini even has a rewind function – you'll find neither here. If your save batteries are dead, you're out of luck. Additionally, there's no support for patching games, so if you want to play that ROM hack or fan translation, it's back to the Everdrive you go. We were also a little surprised to see minimal printed documentation with the console, though plenty is available online. Still, these are ultimately relatively minor knocks against a fantastic console.

Our only real concern is where the Super Nt fits into the market. The kind of players most likely to shell out over £150 for an incredible SNES-compatible machine are heavily invested retro gamers – and that's where value for money comes into play. Pairing an original SNES with a high-quality external upscaling box (Framemeister or OSSC) isn't quite as convenient or flexible as the Super Nt, and the audiovisual quality will never truly match a fully digital output. However, the obvious benefit is that the upscaler then works with your other systems.

If you're only interested in the SNES and have no interest in picking up a CRT display, the Super Nt is an easy recommendation – it's the best SNES clone we've ever tested. But if you've got other consoles, we'd recommend you consider how much you'll gain out of picking up one dedicated SNES device over something more versatile. There are definitely reasons you might choose to – it's just a tougher choice. *

In a nutshell

Analogue's Super Nt is a new benchmark in retro console design – the FPGA design clearly offers many advantages and very few drawbacks. It won't be for every retro gamer, but many will come to swear by it.



RETRO ROUNDUP

WE LOOK AT THE LATEST RETRO-RELATED RELEASES

✱ PICK OF THE MONTH

Burnout Paradise: Remastered

» System: PS4 (tested), Xbox One **» Buy it from:** Retail, online **» Buy it for:** £34.99

We've really come to miss the *Burnout* series over its decade-long absence from our screens, and this brand-new remaster confirms that there's more to that than rose-tinted memories. We've always loved how the series encouraged us to take insane risks at terrifying speeds, and narrowly pulling off a high speed stunt in a shower of sparks is no less exhilarating today.

Burnout Paradise adapted the series' combat racing formula into an open world environment, and there's still not much like it. It's truly open – although races have fixed end points, how you reach them is up to you. The loose route guidance might not be to everyone's tastes, but we feel that it really encourages you to explore the city, as following the other racers is fine but you can do far better finding your own route and smashing through a shortcut or two. Additionally, you'll find the usual time trials and destruction derbies, and there are plenty of challenges to undertake while wandering the map – smashing billboards, destroying gates and performing dangerous jumps.

All of the original DLC from *Burnout Paradise* has been included in this release, and the visuals have been remastered. The work done here is subtle – while it definitely doesn't look like a brand-new game for 2018, there are a number of improvements to textures, lighting and special effects. These are enough to ensure that the game always matches the original creative vision, event at true 1080p and above. The original game was already running at 60fps and that hasn't changed here.

In leaving the core game alone and concentrating on a graphical overhaul, EA has preserved what made *Burnout Paradise* so good back in 2008, but it does feel like it could have used some modern quality of life enhancements such as fast travel. Previous players might feel that the mid-tier price point is a bit much with that in mind (especially Xbox One owners who can play the 360 version), but *Burnout Paradise: Remastered* still offers plenty of fun for that money.

>> Score **86%**



» [PS4] Left: Hunting down bilboards it still as fun as ever. Especially since we've forgotten where they are.



»[PS4] Below: Graphically and performance-wise the game has been touched up.



Fear Effect: Sedna

» System: PS4 (tested), Xbox One, Switch, PC
» Buy it from: Online **» Buy it for:** £15.99

This unexpected series revival never made any pretence of following in the footsteps of its *Resident Evil*-inspired predecessors, so the switch to an isometric tactical shooter isn't a disappointment. Unfortunately, almost everything else is. The developers have tried to offer a variety of mission types, from puzzle solving to straight shootouts. Unfortunately, everything feels poorly designed. Though the game offers some interesting options to plan a co-ordinated attack, it's unnecessary as wading in with all guns blazing is just as effective. In stealth sections, enemies will wander past their dead comrades without a second thought. Hopefully, this won't send Hana, Rain and the gang back into retirement, as we'd been looking forward to their return.

>> Score **44%**



Devil May Cry HD Collection

» System: Xbox One (tested), PS4, PC
» Buy it from: Online, Retail **» Buy it for:** £24.99

Disappointing is the kindest way to sum up Capcom's latest compilation. Instead of putting any extra effort in, Capcom delivers a selection of games that meet the bare minimum requirements for a rerelease. Capcom could have created a love letter to the series, delivering the three earlier games that appeared on Xbox 360 and PS3 and including *Devil May Cry 4* and the reboot, *DmC*. Instead we get the same minimal-effort release that first appeared in 2012, only the resolution has now been upped from 720p to 1080p. The first and third games are still enjoyable, but there's little to justify upgrading to this port, unless you can no longer play the original collection, of course.

>> Score **60%**



Kirby Star Allies

» System: Switch **» Buy it from:** Online, retail
» Buy it for: £49.99

Kirby games don't really push the boat out in terms of inventiveness, but they're usually always fun to play. This latest offering is no exception and while it's stupidly easy in places, it's still entertaining. The big selling point of *Star Allies* is that Kirby can now team up with up to three enemies and combine their abilities, which adds plenty of new options as you progress through the colourful levels. The stage design throughout is solid, if never spectacular, and there are always lots of goodies hidden off the beaten path, meaning exploration usually yields rewards. It lacks the inventiveness of *Planet Robotbot*, but the included minigames do prove to be something of a time sink.

>> Score **74%**



» [PC] *Exploring the Dungeons Of Noudar 3D,* meeting the locals and getting into fights.



» [PC] *SyntaxBomb* is like *Bubble Bobble* but with high explosives.



» [PC] Zooming through neon landscapes with *Gravity Rush.*

FINISH WHAT YOU START

One problem that many homebrew developers have is actually getting their games finished. We've seen countless promising-looking projects announced over the years only to have them fall by the wayside for an assortment of reasons. That's where the second Finally Finish Something Jam comes in, to act as encouragement for developers to resurrect and finish projects which have been languishing in the dreaded development hell for a while but only need that final push to get them finished.

Fans of role-playing games have a few options to choose from. Both *Dungeon Junkie* and *Solima Jam Edition* are minimal top-down dungeon crawlers sporting a simple art style, while *Dungeons Of Noudar 3D* goes for a three-dimensional approach that's particularly impressive since the entire game fits neatly onto a single 3.5-inch floppy disk, runs from DOS and the developer's recommended processor is a 486DX2. And if low specifications are interesting to you, there's also *Terminal RPG*, a purely text-based RPG which runs within a terminal window on any computer with Python installed.

Lovers of fast-paced action have *Get To Da Choppa*, a delightful *Choplifter*-inspired rescue mission where the player's character can also choose to wade in without their helicopter. There's more shooting action and an unusual gameplay mechanic in *Evade!* where narrowly avoiding collisions will power up the on-screen plane, while *Don't Shoot Anybody* turns the shoot-'em-up format on its head by challenging the player to use their weapon to complete each stage while killing as few bunnies as possible in the process. There's also bizarre endless runner action with a headless character racing over hovering platforms in *Hiko Run,* and *Treasure Parrot* where the titular avian must pop bubbles to collect coins and keep itself in the air.

Sokoban-style games are the inspiration for *block.Pull* where a blob called Rob must work through 11 stages in search of his girlfriend Roberta. *Fractured Flicks* is a puzzle game where the player reassembles chunks of video as they're playing and more cerebral gamers have a couple of solitaire variants and *Nuclear Chess*, a post-apocalyptic version of the board game which can be printed out and played. There's plenty of humour, too – for example, *Second Amendment Dodgeball* takes the school playground staple and, err, 'improves' it by adding shotguns.

These were just a couple selected from over a hundred entries, all of which can be found at the jam's website behind Kikstart.eu/finish-2018.

NEW GAMES NEEDED

If you have a homebrew project you would like to see featured then please contact us at: **darran.jones@futurenet.com**



» [ZX Spectrum] The first meeting seems to be going quite well in *Plumbers Don't Wear Ties*.

NOT ENTIRELY SERIOUS

The 2018 edition of the CSSCGC – or Comp.Sys.Sinclair Crap Games Competition to use its full title – is under way. The challenge here is to produce a game that would have been worthy of appearing on Cascade's legendarily bad Cassette 50 compilation.

This year's host is, for his sins, Shaun Bebbington and the competition website can be found at Kikstart.eu/csscgc-2018. One entry which has caught our eye already is a version of *Plumbers Don't Wear Ties* which replaces all the questionable voice acting with equally questionable text.

> "The graphics are almost all black on a grey background"

DARK AND FORBODING

Have you fancied taking on the role of a plague doctor and wearing the hood with a beak-shaped nose while collecting herbs to help your patients, and possibly even taking on Death itself? In that case *Plague* on the Atari 2600 is the game for you.

This is a platform-based action game and very dark, both in tone and literally since the graphics are almost all black on a grey background. Kikstart.eu/plague-2600 will cart you off to the Atari Age thread where there are downloads and more information.

» [Atari 2600] Dark and brooding platforming action.





» [PC] Some of the creatures are a little more ethereal than others.

·HOMEBREW HEROES·

Dungeons Of Noudar 3D is an RPG specifically written for DOS-based PCs by Daniel Monteiro and, after getting a little lost in the dungeon, we sat down to find out more



THE BIG INTERVIEW

Where did the idea behind *Dungeons Of Noudar 3D* come from?

After many years following ID Software's products and being an avid RPG player, I fell in love with *Orcs And Elves*. Eventually, it dawned on me that this kind of project was feasible to write by myself and finish with acceptable quality.

Since I always wanted to revisit my old days of dungeon crawlers on a 486 and learn to code at a lower level, this was the perfect chance to shake off the bloat from modern programming. If something is badly coded, running on an old PC will show that very clearly.

Finally, I like to write about Portugal. The story is based on a legend from castle Noudar.

How long did it take to program the game?

The 3D engine that sits on top of the text-based RPG engine took me about three months of work, mostly comprising texture-mapping optimisations, but also new puzzles and expanding the story. The text version itself was written in late 2014 for another game and greatly revised for the High-Voltage.cz games contest.

Aside from using EA Standard Template Library and a couple of other smaller third-party libraries – to control the OPL2 sound chip, for instance – it's a solo effort. Of course, as the title screen states, the art came from a 2D roguelike called *Stone Soup*.



» [PC] He might be a big lad, but the Crossbow Of Damnation will deal with him.

And which tools were used during that development?

The project was built with a modern revision of the classic DJGPP protected mode compiler, in order to fully support C++14. Everything was cross-compiled from my modern Linux box, with an SDL version serving for debugging purposes, along with DOSBox.

I test on real hardware, that being a 486DX 50Mhz (equipped with an OPL2LPT) and a 486SX 33Mhz. While not my prime target, getting to be at least playable on an SX was a matter of pride.

Why the recommended spec of a 486DX DOS box?

The 486 is of special significance to me – it was the first machine that could match the almighty Sega Mega Drive. I wrote this game to test myself, but being realistic on what could be achieved, thus the 486 was chosen.

What sort of feedback have you received?

The most unexpected and nicest feedback I got was that people wanted to draw maps on graph paper, just like the old days. This makes the game a bigger experience than the bytes on the floppy.

Another surprise that seems to catch people off-guard is that most games of that genre would employ perspective-drawn images for walls and such. It's interesting when they realise that this game is in 3D.

Do you have any future projects that our readers might be interested in?

I'm reworking key parts of my previous game,a DOS platformer called *Castle Of Viana*, written for the CGA jam. My goal is retargeting it to any 16-bit IBM PC-compatible.

Having also just finished porting *Dungeons Of Noudar 3D* to work as a RetroArch core, I intend to follow it up with more of RPGs, with a bigger narrative scope.

Gaming
REVIEWS

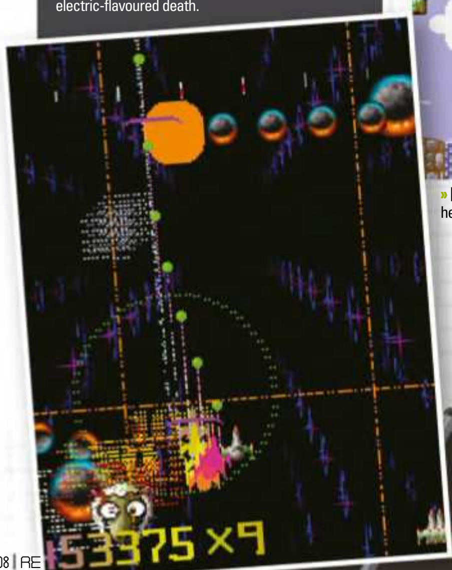
·DO YOU· REMEMBER?

Jeff Minter's *Gridrunner++* takes the original VIC-20 game and dials everything up to 11. Players use their mouse to guide an automatically firing spaceship around the screen to aim its hail of bullets at the chains of incoming enemies and, if needed, there's also the Sheepiezapper weapon on the right mouse button which can obliterate everything once per level.

Not everything that appears can be shot however, the sheep which wander through the war zone will beef up the ship's firepower or can be used as a 'sheepie save' and there are electrical discharges from the *XY Zappers* that are indestructible but destroy the player on contact. *Gridrunner++* was originally released as shareware in 2002 but the full version can now be downloaded from Llamasoft's website for free. Herd your cattle of mice and keyboards over to Kikstart.eu/grid-plus-pc for more.



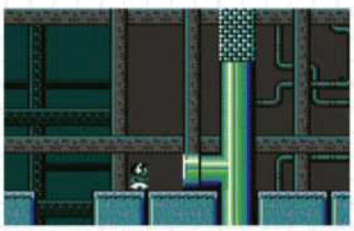
» [PC] Wildly veering away from electric-flavoured death.





PETS RESCUE

» **PLATFORM:** COMMODORE PLUS/4 » **DEVELOPER:** PLUS/4 ALL STARS » **DOWNLOAD:** KIKSTART.EU/PETS-RESCUE-264 » **PRICE:** FREE DOWNLOAD, £TBC PHYSICAL



» [Plus/4] Hang on a minute, this thing looks more than a little familiar!



» [Plus/4] Making a little extra money, but getting a headache into the bargain.

Although she leads an exciting second life as singer Afro Dree, Andrea Brown's day job involves wearing a lab coat and caring for cute animals at her own practice, Dr Dree's Veterinary Centre. And what starts out as a delightful day of animal frolicking soon goes south. The good doctor's assistant Edward Vil – whose name should perhaps have been a giveaway during the interview process – has been spending time hidden away in a darkened room and conducting nefarious experiments with animal DNA until things go disastrously wrong and every critter in the building is drastically mutated.

So now Doctor Dree's task is to head out into the world, searching for the menagerie of suddenly evil creatures in order to rescue them by jumping on their heads, undoing Doctor Vil's dastardly work so they revert to being cute once more. There are also huge coins for the doc to collect which add to her score. Some merely hover in the air, but others are concealed within boxes – which are sometimes invisible until butted against – or platforms and a few are even invisible. Occasionally the boxes will disgorge power-up items as well so it's worth going after them.

While it looks and sounds charming *Pets Rescue* is also difficult, sometimes frustratingly so, and it really doesn't hold back on that front with tricky jumps over death pits and nasty positioning of enemies both appearing pretty much from the get-go. Andrea's movement needs constant attention because reacting to hazards can take a moment due to a heavier version of the inertia certain moustachioed plumbers have to deal with.

Pets Rescue is a superbly presented game – it's one of the most technically impressive releases that the Plus/4 has ever seen – but that steep difficulty curve is going to frighten some players off so they won't get to see a lot of the work that's gone into it. Braver souls will need to spend time acclimatising to the controls and learning the maps if they want to succeed.

>> Score **74%**

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GALENCIA

» **PLATFORM:** COMMODORE 64
» **DEVELOPER:** PROTOVISION » **PRICE:** $4.99 DOWNLOAD
» **DOWNLOAD:** KIKSTART.EU/GALENCIA-C64



» [C64] Say hello to the boss, it seems a little grumpy today.

The bee population of Earth has been steadily declining due to mankind's thoughtlessness, but every action has a consequence and now the bee guardians have arrived from outer space to avenge their fallen brethren. Our civilization's only hope is a couple of battered Galencia fighter craft which were originally built in 1981 but still might be a match for Earth's latest enemies in battle.

There are 50 levels to blast through with every fifth one either being some kind of challenge – shooting chains of nasties or collecting stars within an asteroid field – or a boss fight. The craft's firepower can also be increased by allowing it to be captured by a Siren enemy and using the next life to release it. Although this isn't a direct clone, *Galencia* is a heartfelt love letter to *Galaga* from programmer Jason Aldred and a well-written one at that.

» Score **88%**



» [C64] Even with two ships in action the odds aren't particularly high.

STUNT CAR RACER

» **PLATFORM:** ATARI 8-BIT » **DEVELOPER:** FANDAL AND IRGENDWER
» **DOWNLOAD:** KIKSTART.EU/STUNT-CAR-A8 » **PRICE:** FREE

When the first racing season begins in *Stunt Car Racer* the player is in division four and must compete against computer-controlled opponents to work their way up through the ranks. The raised tracks themselves add to that challenge since they look and indeed feel like rollercoasters, with steeply banked curves and huge ramps to negotiate. Learning each of the circuit is essential to success and landing badly or falling off will damage the car, so it's fortunate that there's a practice mode.

Stunt Car Racer has long been on the wishlist for many Atari 8-bit gamers and, as a belated Christmas present, Fandal and Irgendwer have taken apart the C64 version of Geoff Crammond's classic racing game and persuaded it to run on a 128K Atari 8-bit. They've also added some features along the way including online high scores and a cover of Yello's *The Race* during the menu screens.

» Score **82%**





» [Atari 8-bit] Tearing up the track, regardless of what angle the car is at.

ROUNDUP

The minigame *Desert Bus* on the Mega-CD has become legendary in part due to Loading Ready Run's yearly Desert Bus For Hope charity event, so it's a surprise that more conversions of Penn and Teller's game design haven't materialised. There is *NESertBus* now, which is a 2D implementation of the 'classic' real-time bus driving simulator where not much happens apart from the steering drifting to the right. Head to Kikstart.eu/nesertbus-nes.

Also on the less sensible side of things is *Fart Escape* for the C64. The player character's path to freedom is filled with hazards and the only way to avoid death is by utilising some truly incredible flatulence to literally rise above things. Be careful though, too much gas also means sore nether regions and nobody wants that. Follow the link behind Kikstart.eu/fart-c64.

RETURN TO GENESIS

» **PLATFORM:** MEGA DRIVE » **DEVELOPER:** Z-TEAM » **DOWNLOAD:** KIKSTART.EU/RETURN-GENESIS-MD » **PRICE:** FREE

The Genesis Project was an ambitious clone-based think tank spread over 50 planets that, having done wonderful things, fell into the clutches of the Mechanauts who forced the scientists into slavery. Now these foul creatures are at war with one another so a rescue mission can be mounted.

Return To Genesis is a rough conversion of the 1988 Atari ST and Amiga game of the same name but, although we've been playing version 1.0, it still feels unfinished and there seem to be programming issues which can leave the craft embedded within the background or a scientist unreachably out of bounds.

A new control scheme has been grafted in, which feels twitchy. And the scrolling now has to be pushed, which means that the player's ship gets far closer to where enemies spawn than it did on the 16-bit computer versions.

» Score **46%**



» [Mega Drive] In space nobody can hear you scream in frustration.

MAILBAG

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WIN! Every month, one lucky writer-in will receive a spanking copy of either our NES/Master System or SNES/Mega Drive books



BEAT THE TEAM

POWER DRIFT



This month we took inspiration from Martyn's Ultimate Guide, testing our racing mettle on Sega's Power Drift.

SAM 1,507,410
A good start will set you up well for a shot at the top three. That means changing gear at just the right time and avoiding your opponents. And I don't bother slowing for down for corners - only squares slow down for corners...

NICK 1,385,293
Slow down for corners. I can't stress this enough. You will fall off the track and lose precious time if you don't. Also, try to get the bonuses for finishing in higher places, they're pretty big.

DREW 893,734
I actually did way better than this, but I wrote my score down on a piece of paper that I then threw away. So this is my just deserts. This is the fate that I deserve.



» [Arcade] Oh look, Drew has ended up on the floor yet again.

WONDER DEVICE WISHES

With new products and devices being announced to support/mod older machines all the time, what would you like to see next and for what system?
Kev Moneyball Mase (via Twitter)

Some way, any way, to make old lightgun games playable without a CRT TV. Those old sets aren't going to last forever. We've seen a clever device called the LCD Zapper Pro by Charlie Cole that might just solve the problem across many systems, and we're hoping it becomes commercially available soon.



» [PlayStation] We've been hankering for a bit of Time Crisis, so we dream of lightguns on LCD TVs.

OUT OF CONTROL

Hello **RG**,
I find it disappointing that the make-believe squad that inhabit the world today still cling to this fabled story that the SNES is the best console of all time. Sure, it has great graphics and sound but that SNES control pad in my opinion is the kiss of death to gameplay.

When it comes to gameplay (which game-playing is all about after all), anyone who played a Mega Drive back in the day must acknowledge that Sega's machine wins hands-down. With great graphics and sound that is just as good 95 per cent of the time and with a *superior* game-playing experience due in great part to the Mega Drive's control pad, is lunacy that the SNES keeps topping every gaming chart/poll going. Even Darran named the Mega Drive his favourite console.

People might as well stop talking about this as the results never seem to change.
Robert McMillan



It's clear that many readers think that they're both great – the SNES and Mega Drive were so close in issue 177's poll that they frequently swapped the top spot during voting, and the difference in final vote share was less than 0.5 per cent. More people voted for both machines than voted for either individually!

If the default controller is keeping you from enjoying the SNES, we'd suggest you look at some alternatives. The Competition Pro Super 16 has the SNES button layout in a Mega

STAR LETTER

22ND CENTURY RETRO

Hi **RG**,
First off, I love **Retro Gamer** and have every issue ever produced. I'm always first to the newsagency when the new edition comes out. I can't seem to remember you doing an article on 'futureproofing' video game collections. By this I mean: what steps a games collector should take to ensure nothing bad happens to their collection.

For example, I have removed the battery backups from my early Game Boy cartridges after discovering that one of them had leaked acid all over the PCB. It was a tough decision to make for me as it went against my desire to keep the games completely original. Also, how do you keep your game saves while replacing the battery, and can you install a battery holder to make it easier to change the batteries in the future?

I'd love to know if you should remove the internal batteries from Game Boy Advance onwards when storing them. I read that you should leave the batteries in the machine and charge them once every six months. Maybe you have an expert on board the team who could give their opinion?

I had a fair collection of Game & Watch consoles, but had to get rid of them as the LCD screens were slowly bleeding, rendering them black and completely unplayable. Could this be avoided?

I'm sure you have plenty of other ideas (like packaging, should it be stored in acid free, archival quality plastic bags), but thought an article on futureproofing might be great for your readers/collectors, I know I'd love to read it.
Mark Hine

This is a fantastic idea, Mark. Preventative maintenance can go a long way towards keeping your collection working, and it's hard to know what measures to take. We can't promise it'll appear soon, but this is an aspect of retro gaming we'd love to start covering.

» Can these LCD displays be prevented from failing – and if so, how?



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Drive-style shell. If it's shoulder buttons you don't like, try the Competition Pro Multi-System 6, the Mad Catz/High Frequency Turbo controller, or the Tecno Plus controller – all of these offer the Mega Drive's six-button layout.

RPG RESCUE

What happened to the *Shining Force* and *Suikoden* franchise? Are there ever going to be new games?

Jutandy (via Twitter)

The last we saw of the *Suikoden* series was a Japan-only PSP game in 2012, *Genso Suikoden: The Woven Web Of A Century*. It reviewed well and went to number one in the charts, so we don't know why the series has since gone dormant. Our only guess is that it might be due to Konami's increasing focus on products outside of traditional console gaming.

The *Shining* series is still going, but other than the fighting spin-off *Blade Arcus From Shining*, it's been Japan-only for a long time. The last English release was the PS2 game *Shining Force EXA* in 2007, and the last European release was *Shining Soul II* in 2004. The good news is that the series is returning to our shores – *Shining Resonance Refrain* is due for release on PS4, Xbox One, Switch and PC later this year.



» [PC] Here's a sneaky look at *Shining Resonance Refain*, the next entry in the long-running RPG series

JAMMA PLUS

Are there any home versions of first released arcade games that are considered for any reason better?

YorksTerrorVision (via Twitter)

Yes, plenty of them. Namco was the first company to make a habit of producing 'better than perfect' conversions, and the first example most people will jump to is its Dreamcast version of *Soulcalibur*. The graphics were improved, the sound was at least as good, and it offered more characters and modes. Likewise, *Tekken Tag Tournament* and *Time Crisis II* on the PS2 are improved over their arcade incarnations.

Before home technology caught up with arcades, the lines are fuzzier and there are areas for dispute. Many believe that the NES version of *Contra* is more enjoyable despite its graphical inferiority, and *Buggy Boy* for the C64 tends to draw the same claims.

DISCUSSED THIS MONTH

PlayStation Games

Nick and Darran have both been picking up games for Sony's debut console this month – Darran's grabbed *Castlevania: Symphony Of The Night, Gran Turismo 2* and *Driver*, while only *Ace Combat 2* stands out from Nick's furious fighters *Tekken, Tekken 2* and *Battle Arena Toshinden 2*. Crocaganda expert Sam has been trying to get them to buy *Legend Of The Gobbos* with little success.





From the forum

Every month, Retro Gamer asks a question on the forum and prints the best replies. This month we wanted to know…

What is your favourite Bitmap Brothers game?

NorthWay
Tough one this – I am torn between *Cadaver* and *Gods*. If Gods had been a bit smoother then I would have picked it (perhaps the Genesis version is worth trying?), but I think Cadaver wins out for advancing the isometric genre visually and not being run-off-the-mill.

flatapex
Speedball 2, because put simply it's an absolute scream to play.

lavalyte
Cadaver by a long shot. I was obsessed with it enough to map it out and write up a game solution, which is still kicking about the internet 20 years later.

antsbull
The Chaos Engine was my favorite. They put a lot of attention into supporting the PC back then, and their games were almost peerless on that platform.

ncf1
Speedball 2, it is genius. My go-to Amiga game. 16-bit perfection. Just about flawless in every way. Any more superlatives and you will need more pages to fit them in.



» [Amiga] There's still plenty of love for *Speedball 2*

mrmessy
You can keep your ice creams, I prefer to activate my nodes - it's *The Chaos Engine*.

ely
Has to be *Speedball 2*. Sounded great, looked great and played great, a true classic of the era and the sports genre.

PostieDoc
Speedball 2 on the Amiga, one of the best two-player games of all time.

sirclive1
Speedball 2 - it's not only the best Bitmap Brothers game, it's the best sports game of all time.

retro GAMER

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Printed by
Wyndham Bicester, Gravnville Way, Bicester, OX26 4QZ

Distributed by Marketforce, 5 Churchill Place, Canary Wharf, London, E14 5HU www.marketforce.co.uk Tel: 0203 787 9060

ISSN 1742-3155

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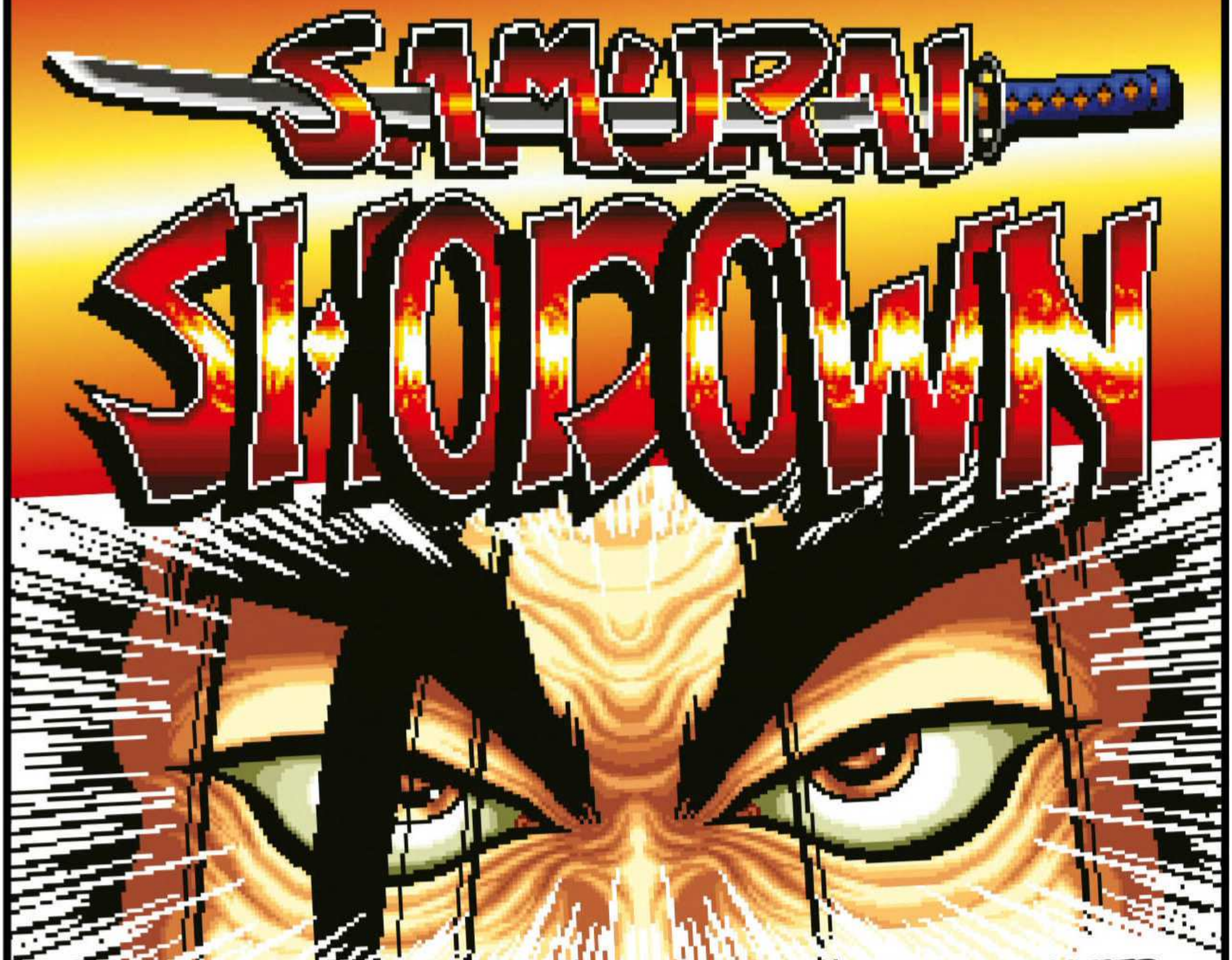
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ENDGAME



DEAR BOYS

» Cast your eyes left, to the box art of this game. As you can see, it features a uniformed basketball team. Now consider the title of the game, and the images below. Would you have any clue what you were picking up if you found this in a shop? *Dear Boys* is in fact a sports management visual novel based on a famous manga. What happens when you get to the end? Let's find out…



01

» Here's the Mizuho High School basketball team taking a break. One of them has a stupid haircut and is smoking, to show that he is a bit of a delinquent. We'd expect that he turns out to have a heart of gold.



02

» Here's a moment when tensions boiled over into a scrap between teammates – kind of like John Fashanu and Lawrie Sanchez. You remember them, right? Good old Wimbledon, the Crazy Gang. What were we talking about again?



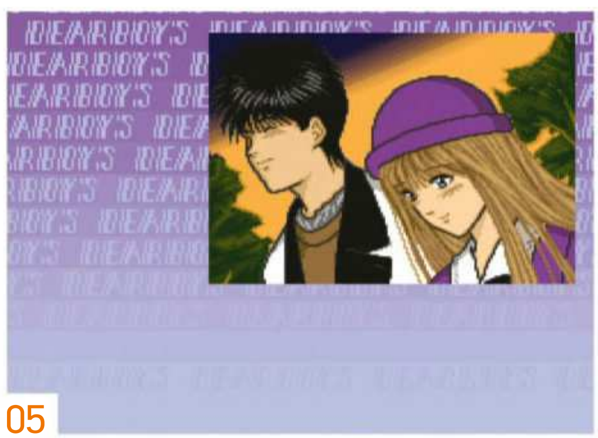
03

» Oh right, *Dear Boys*. These aren't boys though, they're girls. We thought they might be fans of our lads, but on closer inspection we're pretty sure that this is Mizuho High School's girls' basketball team – your training partners.



04

» Okay, we've no idea what's going on here at all. It looks like the protagonist and his girlfriend have gone to see a sad film. We once cried during a movie date, but that's because *The Proposal* is one of the most upsettingly formulaic romantic comedy films we've ever endured.



05

» Whatever it was, they seem to have recovered, as they walk off happily against the backdrop of a gorgeous sunset. It's quite astonishing that we haven't seen any actual basketball here. Imagine if *NBA Jam* had been all about teen romance, eh? There would have been riots in the streets.


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